



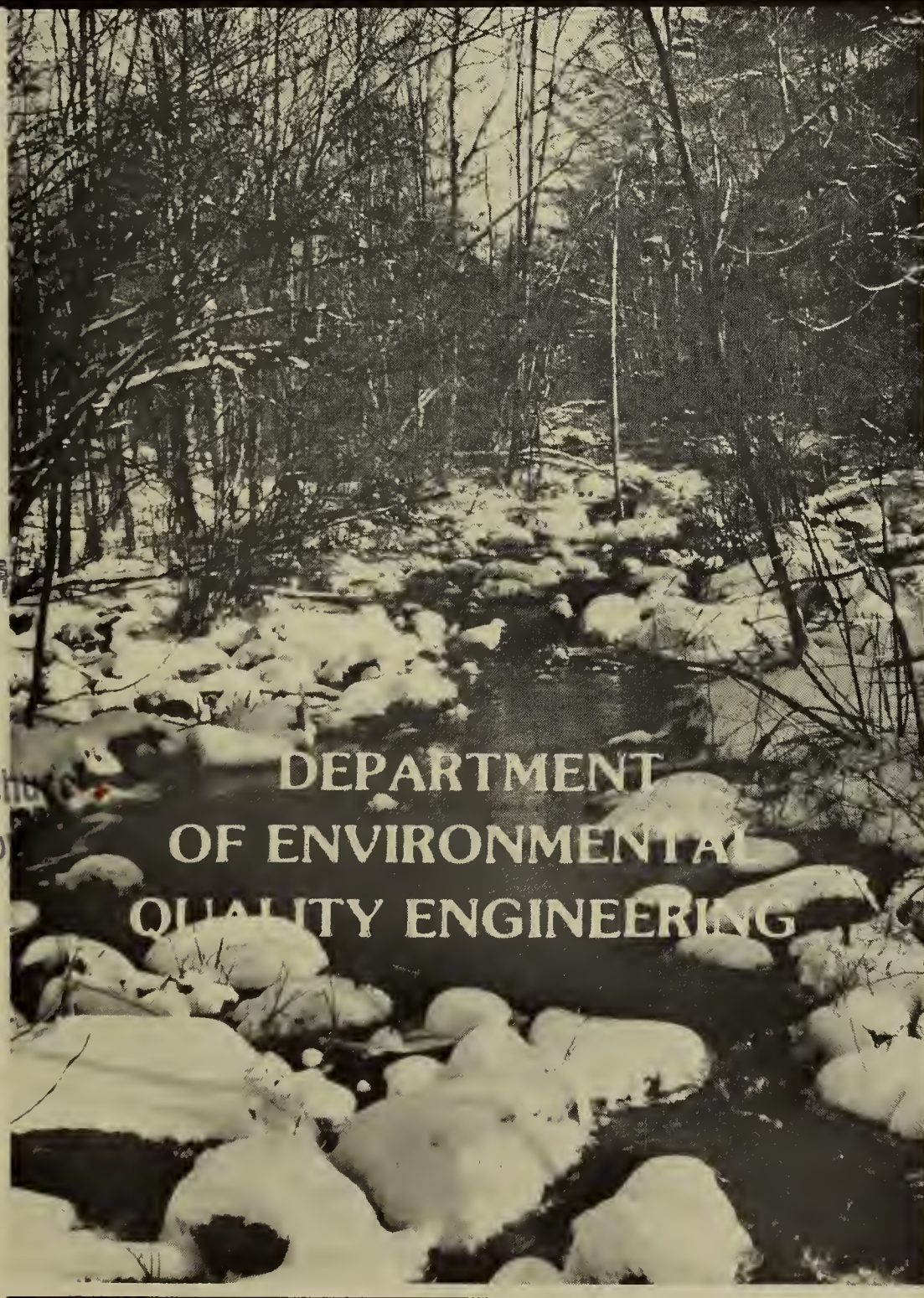
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1985 ANNUAL REPORT

GOVERNMENT DOCUMENT
COLLECTION

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DEPARTMENT
OF ENVIRONMENTAL
QUALITY ENGINEERING

MASSACHUSETTS
WATER RESOURCES COMMISSION
DIVISION OF
WATER POLLUTION CONTROL

Thomas C. McMahon, Director

DIVISION OF WATER POLLUTION CONTROL
ANNUAL REPORT
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
FOR THE
FISCAL YEAR ENDING JUNE 30, 1985

Photograph- East Branch Fever Brook
Petersham, MA
Site of Division-
Sponsored Acid
Deposition Research

Courtesy of Arthur Screpetis
Technical Services Branch

PUBLICATION
Approved by:

ACKNOWLEDGEMENT

Assembling the information, coordinating data collection; verifying submitted data; tracking millions of dollars in grants from bond fund authorizations, formatting the detailed information and deciding on the presentation for the Division's Annual Report are time consuming efforts that one person has handled very capably over the years. Thomas Conaton, Fiscal Officer for the Division, for the past 20 years had performed this task. Tom retired February 28, 1986 after 37 years of public service. His colleagues take this opportunity to publicly acknowledge and thank him for his service to the Division and particularly the excellent job he has done on the Division's Annual Reports.

DIVISION OF WATER POLLUTION CONTROL
ANNUAL REPORT
FISCAL YEAR 1985

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Oil Pollution Control and Hazardous Waste Emergency Response now The
Division of Solid and Hazardous Waste.

DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING

DIVISION OF WATER POLLUTION CONTROL

ADMINISTRATIVE OVERVIEW - FY '85

The Division of Water Pollution Control is charged with the abatement of pollution and the preservation of water quality in the waters of the Commonwealth. The Division's main goal is to have all waters restored to minimum standards thereby protecting the health and enhancing the commercial, recreational and other economic opportunities of the citizens. The Division's major programs encompass: wastewater treatment plant construction; collection systems construction maintenance; water quality monitoring technical assistance; wastewater treatment plant; operator training; lake preservation and restoration; water quality management planning; permit issuance and compliance; enforcement; and research and demonstration.

Significant additions to and increases in Divisional program responsibilities occurred during FY's 84-85. These are dovetailed into the following specific goals that the Division aspires to during FY 86:

1. Administration of financial assistance programs to municipalities and other public entities for \$130 million annually for construction of wastewater treatment facilities; 12 million annually for collection systems; \$3 million annually for restoration, preservation or maintenance of lakes and Great Ponds in Massachusetts and \$100 million annually for inflow and infiltration projects.
2. Groundwater Management Program to institute a Subsurface Permitting Program, and effectuate a statewide Septage Management Program.
3. Program delegation of the National Pollutant Discharge Elimination System (NPDES) responsibility to the state of Massachusetts by the United States Environmental Protection Agency.
4. Increased Coastal Water Quality Improvement efforts in major estuaries of Massachusetts.
5. Continued water quality management program efforts aimed at increasing the total percentage of 1720 miles of rivers/streams meeting standards from 51% to 54%.
6. Appropriate enforcement activity necessary to bring about expeditions compliance of all permittees to defined limits.
7. Toxics Control Program to include standards in selected permits in priority water body areas.
8. Improved performance of wastewater treatment plant operation and maintenance through regional office compliance inspections, technical assistance, and operator training efforts.

The construction grants program will remain a cornerstone of the pollution control effort. This program has undergone extensive Congressional and Administrative review and evaluation which culminated on December 29, 1981 with President Regan signing into law the Municipal Wastewater Treatment Construction Grant Amendments of 1981. This legislation provided a strong commitment for continued support of this program and coupled it with a Congressional authorization of \$2.4 billion each year through FY-86. At the State level a similar commitment has been made as evidenced by passage of the State Bond legislation, Chapter 286 of the Acts of 1982. This legislation will provide financial assistance over a ten year period for State matching grants, collection system grants and planning advances to communities for preliminary and final engineering work.

As of May, 1985, this program was at a critical juncture since Congress was considering proposals for reauthorization of the Clean Water Act for FY'86 and beyond. It is most important that as the EPA construction grant funds are reduced with the program responsibilities shifted to the states, the resulting transition be gradual so as to maintain momentum in the State's pollution abatement efforts. In this regard, one of the initiatives already taken at the state level is the enactment of \$100 million program to help communities correct infiltration/inflow problems in their wastewater collection systems. Furthermore the possibility of issuance of financial assistance through a state revolving fund will have to be carefully analyzed.

Although the construction grants program has on-line or under construction a significant number of wastewater treatment facilities, the water pollution cleanup effort has yet to be finished. The FY-85 Project Priority List contains over 40 wastewater and septage treatment projects totalling over one billion dollars which will be ready to move forward during the next five years. Proper attention to the presently ongoing facilities plans and design drawings is critical to assuring the positive direction of this program. It is anticipated that the present level of 51% of stream miles meeting water quality standards will increase to 65% due to treatment facilities presently under construction. Within the next five year period, an attainment level of 65% should be realized.

Combined sewer overflow (CSO) analysis has been emerging as another focus of the water pollution control effort in the rivers and harbors of the state. Congress has indicated its support for CSO cleanup by authorizing \$100 million nationwide per year for FY 83-85, in addition to the base allocation which can also be used for CSO work. Indications are that this level of support will be extended in FY 86 and FY 87 in the CWA reauthorization. During FY '84, staff were trained and educated in modeling and other necessary aspects of the program. From the analysis of statewide data collected, combined sewer overflow management options were selected, of which the prime candidate region was the Lower Connecticut River Basin area. Project plans for construction will be completed during FY'87. Over the next five years, CSO work will also take place in the Boston Harbor area and other possible areas in the State.

From 1986-1990 there will be a limited number of new wastewater treatment plant constructions, with most of the emphasis placed on upgrading existing plants. Critical interceptor and pumping station construction will be continued, particularly where elimination of raw sewage discharges or public health problems exist. A major focus will also be brought to bear on the water quality problems of Boston Harbor.

The Regulatory Branch of DWPC has been a key program during FY '84, 85 where expanded efforts have occurred. These are principally due to emerging national and statewide priorities. Areas of expansion include: 1) groundwater regulation and protection; 2) assumption of additional responsibilities in the surface water discharge permitting program; 3) regional water pollution section activities in the area of subsurface discharges, groundwater protection and compliance inspection and enforcement; and 4) the management and coordination of the clean up of Boston Harbor and other major areas impacted by marine discharges of wastewater.

The scope and justification for each of these four expansion areas include the following:

1. Groundwater

In view of EPA's desire for the states to initiate efforts at integrating their groundwater management efforts through a consolidated FY'86 workplan, DEQE has formed a five-person groundwater protection committee comprised of four division directors and a regional director. This committee will develop and coordinate strategies, work priorities and objectives for the four divisions involved in groundwater; will oversee consistency in DEQE groundwater policy; and will coordinate groundwater management/protection efforts to ensure information exchange, and to eliminate duplication of effort between programs.

The complexities inherent with groundwater resource protection require the expansion of the Division's existing groundwater program to encompass all aspects of DEQE's groundwater protection and management efforts. Working through the broad scope of the Division's permitting, classification, basin planning and technical review programs, the Division will efficiently incorporate the groundwater concerns of other Divisions in the Department who are involved with solid waste management, charge areas protection, and impacts to water supply wells. This should help to result in comprehensive Department-wide groundwater management program. The Division's major output will be issuance, management, and enforcement of a permit system for all significant subsurface discharges which occur statewide.

In this connection, the Division will witness a workload increase of at least a manyear in each regional office. The groundwater activities of each regional office will include the review and approval of subsurface disposal practices, which will include waivers requested under Title 5 of the State Environmental Code, approvals of subsurface systems greater than 15,000 gallons per day, and approvals of discharges of treated industrial process waters. The Title 5 workload requires significant allocation of effort in several regions. The land application of sewage sludge is also an important groundwater protection responsibility which will require additional resources to properly address.

2. Surface Water Permit Program

Expansion of both administrative and technical capabilities of the permit section is required to deal with an increasing workload associated with delegation of the federal NPDES permit program to the Commonwealth. While NPDES permits for discharges to surface waters are currently issued jointly by U.S. EPA and the Division, the Division provides primarily technical input to permit development. Assumption of NPDES delegation, for which the Division applied in October 1983, will bring additional responsibility for managing the extensive procedural requirements of the program.. These include preparing notices and fact sheets, maintaining mailing lists to insure adequate public participation in the process, and scheduling and conducting public and adjudicatory hearings. Axiomatic in these responsibilities is tracking compliance with administrative orders expected to result from increased emphasis on enforcement.

In addition the Division's efforts to control toxics in water will result in greater technical complexity in the preparation of permits. Currently, most industrial discharges have installed wastewater controls meeting the national standard of "best available technology"(BAT). In many cases, however, this level of treatment may not be adequate to prevent the occurrence of toxic effects in the receiving waters. Such situations will require more individualized, case-by-case development of permit conditions.

3. Regional Water Pollution Sections

The Water Pollution Control activities and responsibilities of the four regional offices are increasing in two primary areas: groundwater protection and inspections of permittees for compliance or enforcement.

The groundwater activities of each regional office will include the review and approval of subsurface disposal practices which include waivers requested under Title 5 of the State Environmental Code, of subsurface systems greater than 15,000 gallons per day, and discharges of treated industrial process waters. The Title 5 workload requires a significant allocation of effort in several regions. The land application of sewage sludge is also an important groundwater protection responsibility which will require additional resources to properly address.

The regions' ability to conduct an adequate number of Compliance inspections of both surface and subsurface permittees is important for several reasons. First, in order for DEQE to meet its partnership obligations with EPA as either a non-delegated state (present) or as a delegated state, DEQE must conduct a significant number of compliance inspections and must initiate follow-up enforcement action as appropriate. Second, in order for the Division's compliance fee program to meet expectations, additional compliance inspections must be conducted. Finally, the number of permittees is increasing steadily as the groundwater permitting program becomes more effective.

4. Boston Harbor and Other Major Marine Area Clean Up Projects

DEQE primarily through its Division of Water Pollution Control has a major responsibility in the multi-agency efforts to address the pollution problems in Boston Harbor and other major marine areas. The complex nature of these major pollution problems requires a significant effort to coordinate and assimilate the efforts of diverse agencies and groups such as the various divisions of DEQE, EOE, the Attorney General, MDC, EPA, the Courts and the various communities served.

At present one person is assigned to this DEQE responsibility. The major marine discharges (MDC, SESD, New Bedford, Buzzards Bay, Gloucester) involve complicating factors such as litigation, diverse public sentiments, conflicts among municipalities and financing questions.

In order to effectively deal with this category of discharges the Division recommends the formation of a specialized staff of engineers and scientists and support staff uniquely qualified to deal with these complex socioeconomic and environmental issues associated with these projects. This staff will work/be closely coordinated with existing technical services branch staff, and will begin to effectively address water quality management problems of Boston Harbor, as well as other high priority estuarine problem areas.

In order to fully understand and comprehend the effect of the growth of responsibility outlined in the above four(4) areas, it is necessary to take cognizance of the continuing responsibilities in the division's traditional programs. Inflation, coupled with stable funding levels of state and federal resources have contributed to erosion of the resource base to the point where some program efforts may have to be dropped in the future. While Federal grant awards and state budgets have remained stable, or increased slightly (up to 15%), over the last five years, inflation and salary costs have increased over 45%, resulting in the serious dilemma of stretching a fairly constant program dollar support base over an expanding universe of program responsibilities. In addition, as the page following this overview would indicate, nearly 60% of program staff are presently supported from federal funds, and only 40% from state funds. The current federal support grant base (\$5 million annually) supports approximately 100 staff: this represents a support level which is down at least 20 staff from three years ago.

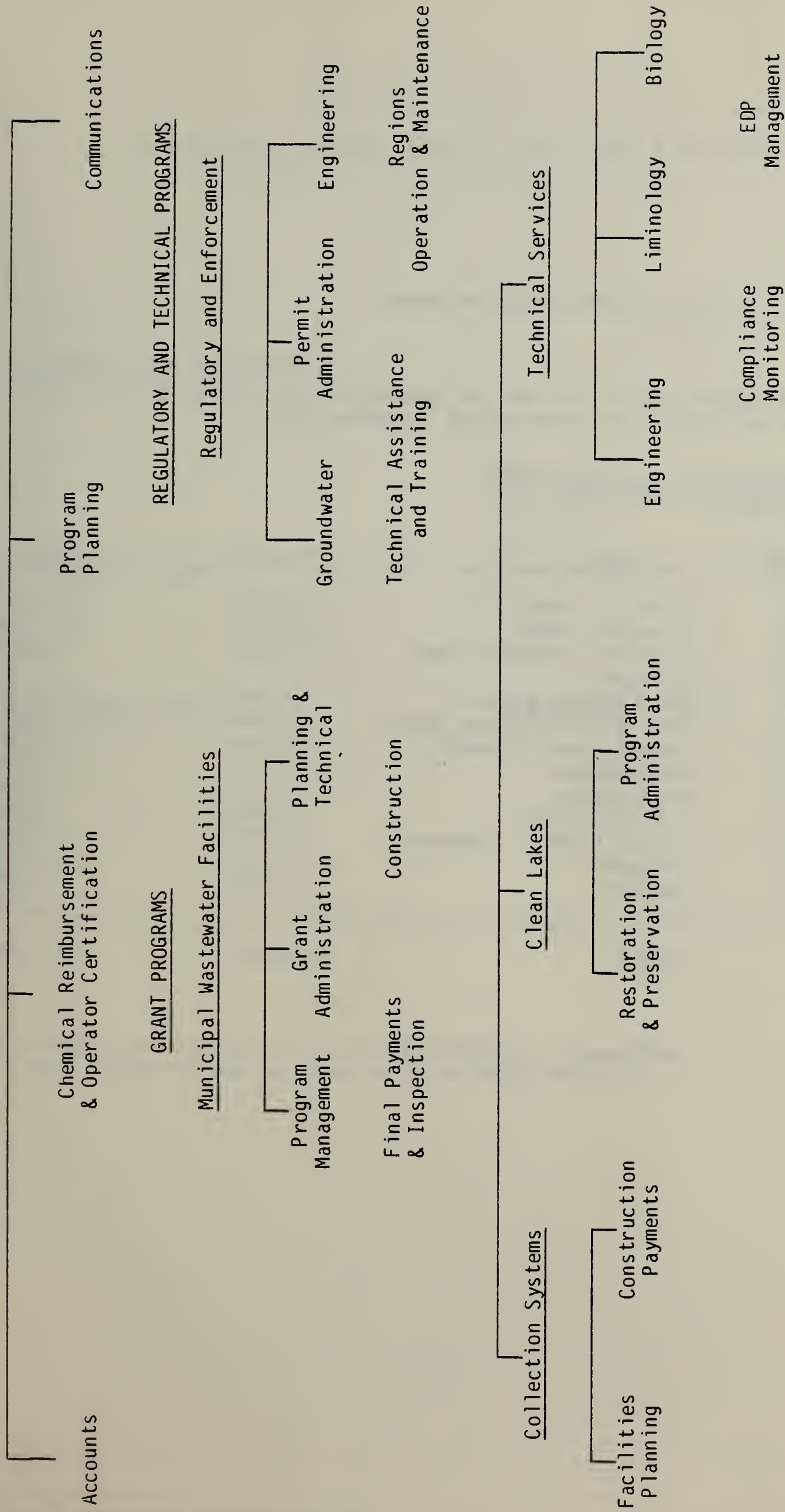
In order to continue to have effective traditional programs and at the same time, in FY'86 to expand into new areas of concern, it will be necessary for the Division top management to try to develop solutions for the dilemma of stable federal grant and state budget levels, with the competing needs of traditional programs plus newly mandated expansion programs. Since the equation of resources available to fund all programs needs is clearly far out of balance, division must set as a top priority management goal in FY'86 of determining the prioritization of present/future program needs and, determining what funding initiatives/alternatives need to be developed. This will predicate what future programs will be offered. With the clear intent of phase down Federal Program support phasedown over the next 5-10 years, it becomes axiomatic in this division's future to begin seriously addressing the dilemma of balancing future high priority program needs with resources which will be available to accomplish these program needs.

DIVISION OF WATER POLLUTION CONTROL
PROGRAM STAFFING
June 30, 1985

<u>Program</u>	<u>Technical</u>		<u>Administration</u>	
	<u>State Funded</u>	<u>Federal Funded</u>	<u>State Funded</u>	<u>Federal Funded</u>
1. Boston Office Administration	1	0	12	10
2. Wastewater Treatment Construction	1	35	0	15
3. Collection System Construction	3	1	3	0
4. Regulatory	9	14	1	2
5. Technical Services/Research and Demonstration	18	16	4	6
6. Regional Services	16	2	4	0
7. Operator Certification/ Chemical Reimbursement	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>
TOTALS	48	68	26	33

Total Federal Supported Staff	-	101 (58%)
Total State Supported Staff	-	<u>74 (42%)</u>
Total Staff	-	175 (100%)

FUNCTIONAL ORGANIZATIONAL CHART



ADMINISTRATIVE BUDGET

Budgetary appropriations and expenditures for the division of Water Pollution Control are shown in the following table:

APPROPRIATION 2200-0181

ACCOUNT	TITLE	FY'1984	FY'1985
01	Salaries, Perm. Pos.	620,350.	\$1,001,555
02	Salaries, Other	548,275.	815,204
03	Services, NON-Employees	14,500.	34,100
05	Clothing		
07	Lab Supplies & Exp.	9,300.	10,052
08	Heat and Other Plant Oper.	3,500.	3,390
10	Travel & Auto Expenses	27,495.	24,845
11	Advertising		21,000
12	Maintenance	16,690.	13,100
13	Special Studies	30,110.*	33,550
14	Office & Admin. Expenses	54,000.	95,000
15	Equipment	16,730.	20,478
16	Rentals	75,086.	79,586
TOTALS		1,416,035.	2,151,860

* Includes N.E. Interstate Water Pollution Control Commission the Pro Rata share of State share of Administrative cost.

REIMBURSEMENT CHEMICAL COSTS, CITIES, TOWNS & DISTRICTS

APPROPRIATION 2240-0500-17

	<u>APPROPRIATION FY 1985</u>	<u>FY'85 EXPENDITURES AND ACCT'S PAYABLE</u>
17 Reimbursement	\$2,119,682.00	\$2,119,682.00

REIMBURSED PERIOD:

7/1/83-6/30/84 (84 FY)

REIMBURSEMENT - COMMONWEALTH SHARES
CITIES, TOWNS & DISTRICTS

APPROPRIATION 2240 - 0600 - 17

	<u>APPROPRIATION 1985</u>	<u>FY'85 EXPENDITURES AND ACCT'S PAYABLE</u>
17 Reimbursement	\$828,354.00	\$828,354.00

WATER POLLUTION CONTROL
STATEMENT OF FUNDS RECEIVED
TO JUNE 30, 1985

DIVISION RECEIPT ACCOUNTS

	<u>GEN.FND. MISC. INCOME</u>	<u>BOND FND. REIMB. OIL SPILLS</u>	<u>FEDERAL AQUATIC WEED</u>	<u>BOND FND. CURRENT YEAR REFUND</u>	<u>SEWER COLLEC. FILING FEE 's</u>
7/31/84					5,600.00
8/31/84	31.80	1,844.04	4,550.00		4,600.00
9/30/84		2,848.73			3,300.00
10/31/84					3,600.00
11/31/84		14,348.00			3,200.00
12/31/84		40,883.85			3,500.00
1/31/85		650.00		11,349.00	3,200.00
2/28/85		17,756.61			3,700.00
3/31/85	146,395.00	412.50			4,400.00
4/30/85	45,560.00				4,600.00
5/31/85	9,715.00	750.00		886.00	4,600.00
6/30/85	1,675.00	5,717.11		39,163.84	3,200.00
TOTALS	203,376.80	85,210.84	4,550.00	51,398.84	47,500.00

<u>Sources</u>	<u>State</u>	<u>Federal</u>
Miscellaneous Income	203,376.80	
Reimbursement Oil Spills	85,210.84	
Federal Grant Aquatic Weed Control		4,550.00
Bond Fund Current Year Refund	51,398.84	
Sewer Collection Filing Fee's	<u>47,500.00</u>	
TOTALS	\$387,486.48	\$4,550.00

Statement of Funds Received
By the
Division of Water Pollution Control
and
Transferred to State Treasurer
June 30, 1985

<u>General Fund Receipts:</u>	<u>6/30/85</u>
Miscellaneous Income	\$203,376.80
Bond Fund Refund	51,398.84
Sewer Collection Filing Fee's	47,500.00
 <u>Federal Grant Account:</u>	
Aquatic Weed	4,550.00
 <u>Reimbursement for Services</u>	
Oil Spillage	<u>85,210.84</u>
 Total Receipts Transferred to State Treasurer:	 <u><u>\$392,036.48</u></u>

BOND FUNDS
JUNE 30, 1985
CHAPTER 687
ACTS OF 1966

APPROPRIATIONS

REGULAR

1967 Fiscal Year		150,000,000.00
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Addition Transfer and Credits

REIMBURSEMENT PRE-FINANCING

FEDERAL SHARE

1974 Fiscal Year	2,939,800.00	
1975 Fiscal Year	379,580.00	3,319,380.00

OIL SPELL RECOVERIES

1970 Fiscal Year	1,095.75	
1971 Fiscal Year	9,787.75	
1972 Fiscal Year	17,397.56	
1973 Fiscal Year	32,463.89	
1974 Fiscal Year	18,101.45	
1975 Fiscal Year	51,093.84	
1976 Fiscal Year	1,277.30	
1977 Fiscal Year	26,000.00	
1978 Fiscal Year	39,510.77	
1979 Fiscal Year	33,368.53	
1980 Fiscal Year	9,117.96	
1981 Fiscal Year	5,629.34	
1982 Fiscal Year	39,523.44	
1983 Fiscal Year	34,268.92	
1984 Fiscal Year	295,460.87	
1985 Fiscal Year	<u>85,210.84</u>	<u>699,308.21</u>

TOTAL APPROPRIATIONS		154,018,688.21
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UNALLOTTED APPROPRIATIONS		<u>632,872.09</u>
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ALLOTTED APPROPRIATIONS		153,385,816.12
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RESERVE FOR ENCUMBRANCES, BALANCES JUNE 30, 1985	11,168,628.00
EXPENDITURES AND UNENCUMBERED ALLOTMENT	142,217,188.12

EXPENDED FUNDS

1969 Fiscal Year	3,909,955.72
1970 Fiscal Year	5,794,991.80
1971 Fiscal Year	7,481,857.81
1972 Fiscal Year	11,598,527.02
1973 Fiscal Year	11,696,067.71
1974 Fiscal Year	15,806,471.56
1975 Fiscal Year	13,286,814.18
1976 Fiscal Year	16,320,534.98
1977 Fiscal Year	7,668,145.08
1978 Fiscal Year	8,371,431.11
1979 Fiscal Year	5,162,399.74
1980 Fiscal Year	4,288,353.60
1981 Fiscal Year	7,621,954.18
1982 Fiscal Year	7,376,615.80
1983 Fiscal Year	6,862,944.23
1984 Fiscal Year	3,459,411.66
1985 Fiscal Year	<u>5,287,235.37</u>

TOTAL EXPENDED FUNDS	141,993,711.55
UNENCUMBERED ALLOTMENT, JUNE 30, 1985	223,476.57

BOND FUND
JUNE 30, 1985
CHAPTER 747
ACTS 1970

APPROPRIATION

REGULAR

1971 Fiscal Year	250,000,000.00	
TOTAL APPROPRIATIONS		250,000,886.00
UNALLOTTED APPROPRIATIONS		<u>1,077,565.82</u>
ALLOTTED APPROPRIATION		248,923,320.18
RESERVE FOR ENCUMBRANCES, BALANCE		<u>58,298,095.56</u>
EXPENDITURES AND UNENCUMBERED ALLOTMENT		190,625,224.62

EXPENDED FUNDS

1975 Fiscal Year	1,374,137.79	
1976 Fiscal Year	14,003,351.66	
1977 Fiscal Year	12,387,045.98.	
1978 Fiscal Year	12,963,574.46	
1979 Fiscal Year	22,411,019.00	
1980 Fiscal Year	20,341,842.72	
1981 Fiscal Year	19,225,645.29	
1982 Fiscal Year	22,043,613.00	
1983 Fiscal Year	26,939,521.39	
1984 Fiscal Year	20,239,916.38	
1985 Fiscal Year	17,651,806.95	
TOTAL EXPENDED FUNDS		<u>189,581,479.62</u>
UNENCUMBERED ALLOTMENT, JUNE 30, 1985		1,043,745.00

BOND FUND
JUNE 30, 1985
CHAPTER 286
ACTS OF 1982

APPROPRIATIONS

REGULAR

1982 Fiscal Year 250,000,000.00

ADDITION TRANSFER AND CREDITS

1983 Fiscal Year 750,000.00

* 1984 Fiscal Year -750,000.00

TOTAL APPROPRIATIONS 250,000,000.00

UNALLOTTED APPROPRIATIONS 183,475,935.97

ALLOTTED APPROPRIATIONS 66,524,064.03

RESERVE FOR ENCUMBRANCES, BALANCES JUNE 30, 1985 43,818,374.07

EXPENDITURES AND UNENCUMBERED ALLOTMENT 22,705,689.96

EXPENDED FUNDS

1983 Fiscal Year 363,602.19

1984 Fiscal Year 11,342,584.56

1985 Fiscal Year 10,920,396.14

TOTAL EXPENDED FUNDS 22,626,582.89

UNENCUMBERED ALLOTMENT, JUNE 30, 1985 79,107.07

* \$750,000.00 APPROPRIATION (MCLAUGHLIN FISH HATCHERY) TRANSFERRED TO THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.

BOND FUND ANALYSIS
FISCAL YEAR RECAPITULATION

YEAR	APPROPRATION	UNALLOTTED	ALLOTTED	RESERVATION PURCHASE ORDER	EXPENDITURE	UNENCUMBERED ALLOTMENT
<u>ACTS OF 1966 CHAPTER 687</u>						
1967	150,000,000.00	150,000,000.00				
1968	150,000,000.00	135,122,000.00	14,878,000.00	6,152,038.00		8,725,962.00
1969	150,000,000.00	126,298,639.00	23,701,361.00	18,650,884.28	3,909,955.72	1,140,521.00
1970	150,001,095.00	115,443,105.75	34,557,990.00	19,085,055.97	9,704,947.52	5,767,986.51
1971	150,010,883.50	96,019,927.50	53,990,956.00	26,662,561.00	17,186,805.33	10,141,589.07
1972	150,028,281.06	91,329,318.06	59,698,263.00	28,202,688.44	28,785,332.35	1,737,942.21
1973	150,060,744.95	78,740,303.75	71,320,441.20	28,523,426.78	40,481,400.06	2,315,614.16
1974	154,018,646.40	56,629,381.70	96,389,264.70	40,009,411.24	56,287,871.62	91,951.84
1975	153,559,320.24	41,489,621.36	111,959,698.88	40,151,768.63	69,574,685.80	2,233,244.45
1976	153,450,597.54	29,652,275.76	123,798,321.78	37,640,584.23	85,895,220.78	262,516.77
1977	153,476,597.54	29,499,383.13	123,977,214.41	30,298,107.06	93,563,365.86	115,741.49
1978	153,516,108.31	23,766,011.33	129,750,096.98	27,491,405.16	101,934,796.97	323,894.85
1979	153,549,476.84	18,758,337.88	134,791,138.96	27,501,307.41	107,097,196.71	192,634.84
1980	153,558,594.80	13,559,823.92	139,998,770.88	28,009,821.22	111,385,550.31	603,339.35

BOND FUND ANALYSIS
FISCAL YEAR RECAPITULATION

YEAR	APPROPRIATION	UNALLOTTED	ALLOTTED	RESERVATION PURCHASE ORDER	EXPENDITURE	UNENCUMBERED ALLOTMENT
<u>ACTS OF 1966 CHAPTER 687</u>						
1981	153,564,224.14	5,839,698.42	147,724,525.72	26,503,376.50	119,007,504.49	2,213,644.73
1982	153,603,747.58	3,218,769.98	150,474,977.60	24,044,485.17	126,384,120.29	46,372.14
1983	153,638,016.50	1,177,659.97	152,460,356.53	19,195,595.14	133,247,064.52	17,696.87
1984	153,933,477.37	539,362.63	153,394,114.74	16,548,725.41	136,706,476.18	138,913.15
1985	154,018,688.21	632,872.09	153,385,816.12	11,168,628.00	141,993,711.55	223,476.57

[illegible]

20.

BOND FUND ANALYSIS
FISCAL YEAR COMPARISON
ACTS OF 1982
CHAPTER 286

<u>YEAR</u>	<u>APPROPRIATION</u>	<u>UNALLOTTED</u>	<u>ALLOTTED</u>	<u>RESERVATION AND PURCHASE ORDERS</u>	<u>EXPENDITURES</u>	<u>UNENCUMBERED ALLOTMENT</u>
1983	250,750,000.00	232,834,114.00	17,915,886.00	8,698,200.00	363,602.19	8,776,733.00
*1984	250,000,000.00	202,731,707.97	47,268,292.03	31,785,372.28	11,706,186.75	3,776,733.00
1985	250,000,000.00	183,475,935.97	66,524,064.03	43,818,374.07	22,626,582.89	79,107.07

* \$750,000.00 IN ACCOUNT 2240-8827 MCLAUGHLIN FISH HATCHERY - TRANSFERRED TO DEPT OF ENVIRONMENTAL MANAGEMENT

BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON

	<u>ACTS OF 1966 CHAPTER 687</u>	<u>JUNE 30 1969</u>	<u>JUNE 30 1970</u>	<u>JUNE 30 1971</u>	<u>JUNE 30 1972</u>	<u>JUNE 30 1973</u>
2685-9013	RESEARCH AND DEMONSTRATION	67,461.47	328,115.48	332,038.46	450,564.62	543,570.85
2685-9015	CONSTRUCTION GRANTS	3,823,218.00	5,370,941.34	6,895,753.78	10,858,822.78	8,750,793.58
2685-9016	PRE-FINANCIN FEDERAL SHARE					2,090,235.00
2685-9018	COMPREHANSIVE PLANNING			35,947.64	39,990.69	
2685-9019	CURB OF OIL POLLUTION	19,276.25	90,841.77	74,133.09	93,436.37	117,046.32
2685-9021	PESTICIDE MONITORING		3,438.02	49,727.11	23,060.24	17,369.46
2685-9021	UNIVERSITY OF MASSACHUSETTS		1,655.19	84,690.16	99,981.70	97,720.49
2685-9023	BERKSHIRE COMM. COLLEGE			7,750.00		
2685-9023	BRIDGEWATER STATE COLLEGE			1,817.57	4,770.99	1,409.24
2685-9024	INDUSTRIAL, MUNICIPAL & RIVER SURVEY					97,444.78
2685-9025	BASIN PLANNING					7,477.99

FISCAL YEAR TOTAL CHAPTER 687	3,909,955.72	5,794,991.80	7,481,857.81	11,571,527.02	11,723,067.71
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BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON

ACTS OF 1966
CHAPTER 687

		<u>JUNE 30 1974</u>	<u>JUNE 30 1975</u>	<u>JUNE 30 1976</u>	<u>JUNE 30 1977</u>	<u>JUNE 30 1978</u>
2685-9013	RESEARCH AND DEMONSTRATION	438,089.16	680,643.63	553,573.74	216,441.76	392,066.15
2685-9015	CONSTRUCTION GRANTS	13,754,203.91	12,510,578.97	15,548,169.62	7,217,032.73	7,809,529.25
2685-9016	PRE-FINANCIN FEDERAL SHARE	1,229,145.00				
2685-9018	COMPREHENSIVE	22,117.50				
2685-9019	CURB OF OIL POLLUTION	85,645.70	25,818.59	19,157.21	89,756.44	54,829.65
2685-9021	PESTICIDE MONITORING	9,823.20				
2685-9021	UNIVERSITY OF MASSACHUSETTS	69,669.33	35,696.38	184,056.27	124,992.48	111,399.97
2685-9023	BERKSHIRE COMM. COLLEGE					
2685-9023	BRIDGEWATER STATE COLLEGE					
2685-9024	INDUSTRIAL, MUNICIPAL & RIVER SURVEY	161,016.24	940.69			
2685-9025	BASIN PLANNING	36,761.52	33,135.92	15,578.14	19,921.67	3,606.09
FISCAL YEAR TOTAL CHAPTER 687		<u>15,806,471.56</u>	<u>13,286,814.18</u>	<u>16,320,534.98</u>	<u>7,668,145.08</u>	<u>8,371,431.11</u>

BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON

ACTS OF 1966
CHAPTER 687

	<u>JUNE 30</u> <u>1979</u>	<u>JUNE 30</u> <u>1980</u>	<u>JUNE 30</u> <u>1981</u>	<u>JUNE 30</u> <u>1982</u>	<u>JUNE 30</u> <u>1983</u>	<u>JUNE 30</u> <u>1984</u>
2685-9013 RESEARCH AND DEMONSTRATION	719,249.28	369,712.60	243,050.24	350,112.24	547,215.72	692,628.64
2685-9015 CONSTRUCTION GRANTS	4,081,645.00	3,756,503.00	7,024,555.25	6,348,212.00	5,859,061.80	2,712,689.80
2685-9016 PRE-FINANCIN FEDERAL SHARE				-0-	-0-	
2685-9018 COMPREHENSIVE PLANNING				-0-	-0-	
2685-9019 CURB OF OIL POLLUTION	198,442.49	121,095.00	354,348.69	678,291.56	456,667.51	53,854.89
2685-9021 PESTICIDE MONITORING				-0-	-0-	
2685-9021 UNIVERSITY OF MASSACHUSETTS	151,941.24	37,143.79		-0-	-0-	
2685-9023 BERKSHIRE COMM. COLLEGE				-0-	-0-	
2685-9023 BRIDGEWATER STATE COLLEGE				-0-	-0-	
2685-9024 INDUSTRIAL, MUNICIPAL & RIVER SURVEY				-0-	-0-	
2685-9025 BASIN PLANNING	11,121.73	3,899.21		-0-	-0-	238.33

FISCAL YEAR TOTAL CHAPTER 687	5,162,399.74	4,288,353.60	7,621,954.18	7,376,615.80	6,862,944.23	3,459,411.66
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BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON

ACTS OF 1966
CHAPTER 687

	JUNE 30 1985	TOTALS TO JUNE 30, 1985
2685-9013 RESEARCH AND DEMONSTRATION	552,703.09	7,477,237.13
2685-9015 CONSTRUCTION GRANTS	4,701,360.61	127,023,070.25
2685-9016 PRE-FINANCIN FEDERAL SHARE	-0-	3,319,380.00
2685-9018 COMPREHENSIVE PLANNING	-0-	98,055.83
2685-9019 CURB OF OIL POLLUTION	33,171.67	2,565,813.20
2685-9021 PESTICIDE MONITORING	-0-	104,318.03
2685-9021 UNIVERSITY OF MASSACHUSETTS	-0-	998,947.00
2685-9023 BERKSHIRE COMM. COLLEGE	-0-	7,750.00
2685-9023 BRIDGEWATER STATE COLLEGE	-0-	7,997.80
2685-9024 INDUSTRIAL, MUNICIPAL & RIVER SURVEY	-0-	259,401.71
2685-9025 BASIN PLANNING	-0-	131,740.60
FISCAL YEAR TOTAL CHAPTER 687	5,287,235.37	141,993,711.55

BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON
ACTS OF 1970
CHAPTER 747

	June 30 1974	June 30 1975	June 30 1976	June 30 1977	June 30 1978
2685-9050 CONSTRUCTION GRANTS		1,374,137.79	14,003,351.66	12,387,045.98	12,963,574.46
FISCAL YEAR TOTAL CHAPTER 747		1,374,137.79	14,003,351.66	12,387,045.98	12,963,574.46

ACTS OF 1970
CHAPTER 747

	JUNE 30 1979	JUNE 30 1980	JUNE 30 1981	JUNE 30 1982	JUNE 30 1983
2685-9050 CONSTRUCTION GRANTS	22,411,019.00	20,341,847.72	18,719,608.29	17,757,521.00	19,930,345.39
2685-9051 COLLECTION SEWER			249,347.00	4,210,082.00	7,009,176.00
2685-9052 LATERAL SEWERS WEYMOUTH			256,690.00	76,010.00	-0-
FISCAL YEAR TOTAL CHAPTER 747	22,411,019.00	20,341,847.72	19,225,645.29	22,043,613.00	26,939,521.39

BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON

ACTS OF 1970
CHAPTER 747

	<u>JUNE 30 1984</u>	<u>JUNE 30 1985</u>	<u>TOTALS TO JUNE 30, 1985</u>
2685-9050 CONSTRUCTION GRANTS	12,221,315.20	11,234,220.95	163,343,987.44
2685-9051 COLLECTION SEWER	8,018,601.18	6,417,586.00	25,904,792.18
2685-9052 LATERAL SEWERS WEYMOUTH	-0-		332,700.00

FISCAL YEAR TOTAL CHAPTER 747	<u>20,239,916.38</u>	<u>17,651,806.95</u>	<u>189,581,479.62</u>
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BOND FUND EXPENDITURES
FISCAL YEARS COMPARISON
ACTS OF 1982
CHAPTER 286

		JUNE 30 1983	JUNE 30 1984	JUNE 30 1985	TOTALS TO JUNE 30 1985
2240-8821	METHUEN	-0-	469,305.00	349,987.00	819,292.00
2240-8822	CONSTRUCTION GRANTS	293,667.00	10,344,763.00	9,677,349.44	20,315,779.44
2240-8823	COLLECTION SYSTEMS			-0-	0-
2240-8824	R & D			131,666.43	131,666.43
2240-8826	LAKES AND PONDS RESTORATION	69,935.19	78,516.56	711,393.27	859,845.02
2240-8828	SLUDGE PLANT	-0-	450,000.00	50,000.00	500,000.00
FISCAL YEAR TOTAL CHAPTER		363,602.19	11,342,584.56	10,920,396.14	22,626,582.89

Legislation

The following legislation was passed during the period July 1, 1984 through June 30, 1985:

Acts of 1984

- Chapter 128 - An Act merging the South Chelmsford Water District of Chelmsford with the Chelmsford Water District.
- Chapter 135 - An Act authorizing the establishment of the Grafton Water District.
- Chapter 152 - An Act authorizing the city of Westfield and the city of Springfield to grant additional and permanent easements to the Tennessee Gas Pipeline Company.
- Chapter 155 - An Act authorizing the town of Holden to abate a certain sewer assessment on property owned by Albert Zottoli, Henry E. Zottoli and Mary Zottoli.
- Chapter 161 - An Act authorizing the city of Fall River to use a portion of Crab Pond in said city for certain road improvements.
- Chapter 166 - An Act further regulating common nuisances.
- Chapter 186 - An Act establishing a Board of Water and Sewer Commissioners in the town of Westminster.
- Chapter 188 - An Act making appropriations for the fiscal year ending June the thirtieth, nineteen hundred and eighty-four to provide for supplementing certain existing appropriations and certain new activities and projects.
- Chapter 189 - An Act making certain corrective changes in certain general and special laws.
- Chapter 221 - An Act relative to acceptance of payment of assessments from member communities and authorizing the Upper Blackstone Water Pollution Abatement District to accept and treat sludge from other wastewater treatment facilities.
- Chapter 233 - An Act relating to the capital outlay program of the Commonwealth.

- Chapter 234 - An Act making appropriations for the fiscal year nineteen hundred and eighty-five for the maintenance of the Departments, Boards, Commissions, Institutions, and certain activities of the Commonwealth for the interest sinking fund and special bond requirements and for certain permanent improvement.
- Chapter 236 - An Act authorizing cities, towns and districts to borrow money in anticipation of certain grants or reimbursements from the Commonwealth.
- Chapter 239 - An Act relative to the appointment and removal of certain state department heads.
- Chapter 265 - An Act establishing a municipal water department in the town of Chatham.
- Chapter 272 - An Act relative to the registration of professional land surveyors.
- Chapter 279 - An Act relative to certain claims against the Commonwealth.
- Chapter 281 - An Act relative to the Blackstone River and Canal Commission.
- Chapter 284 - An Act authorizing the town of North Andover to take water from the Merrimack River.
- Chapter 288 - An Act establishing the Braintree Water and Sewer Commission.
- Chapter 304 - An Act establishing an improved sludge management at the Deer Island Sewerage Treatment Plant.
- Chapter 319 - An Act relative to self-storage facilities.
- Chapter 354 - An Act relative to the State Commission for the conservation of soil, water and related resources.
- Chapter 362 - An Act authorizing the town of Walpole to construct, install and maintain a sewer on a certain parcel of land under the control of the conservation commission.

- Chapter 364 - An Act further regulating the certification by appointing authorities of qualifications for appointment to classified non-civil service positions and the personnel administrator's power to terminate such appointments.
- Chapter 369 - An Act authorizing the increase of ocean discharge of wastewater by the town of Dartmouth and providing for a study of the ocean discharge of wastewater by the Executive Office of Environmental Affairs.
- Chapter 372 - An Act pertaining to the Metropolitan Water District and the Metropolitan Sewer District of the Metropolitan District Commission.
- Chapter 373 - An Act relative to public employee pension deductions.
- Chapter 395 - An Act providing for the conversion of oil to coal by electric generating facilities.
- Chapter 400 - An Act relative to the issuance of registered bonds and notes by cities, towns, and districts.
- Chapter 405 - An Act providing for the transfer of a certain parcel of land in the city of Westborough to the Massachusetts Technology Park Corporation for the purpose of Massachusetts Microelectronics Center.
- Chapter 407 - An Act relative to the funding of the Nantucket Island Land Bank.
- Chapter 430 - An Act relative to the terms of certain bonds and notes to be issued by the Commonwealth.
- Chapter 436 - An Act relative to certain Civil Service rights for Armed Services personnel who served in Lebanon.
- Chapter 448 - An Act authorizing the County Commissioners of Franklin County to establish a program for solid waste disposal.
- Chapter 462 - An Act further regulating the issuance of revenue bonds by the Massachusetts Industrial Finance Agency.

- Chapter 467 - An Act authorizing the town of Stockbridge to pay certain debts of the Department of Water and Sewer Works from the general tax revenues of said town.
- Chapter 471 - An Act further regulating the Government Land Bank.
- Chapter 472 - An Act establishing a grant program within the Department of Environmental Quality Engineering to remove infiltration and inflow from the sewerage systems of towns, cities, and sewerage districts.
- Chapter 477 - An Act exempting municipal purchases from certain public bidding laws when purchasing equipment supplies and materials from other governmental agencies.
- Chapter 480 - An Act relative to the Water Department of the town of Uxbridge.
- Chapter 484 - An Act relative to the system of public construction and the disposition of state-owned property in the Commonwealth.
- Chapter 487 - An Act further regulating the personnel system of the Commonwealth.

Acts of 1985

- Chapter 5 - An Act making an appropriation to fund a certain hazardous waste program.
- Chapter 15 - An Act authorizing the city of Lowell to convey a certain parcel of water supply land.
- Chapter 54 - An Act making appropriations for the fiscal year ending June 30, 1985 to provide for supplementing certain existing appropriations and for certain new activities and projects.
- Chapter 64 - An Act relative to the duties of the Division of Water Resources.
- Chapter 95 - An Act imposing administrative penalties for certain environmental violations.
- Chapter 104 - An Act authorizing the town of Chelmsford to grant a certain easement in conservation land to the Chelmsford Water District.

Chapter 106 - An Act authorizing the city known as the town of Methuen to take, hold and convey additional water from the Merrimack River.

Chapter 114 - An Act further defining the term Vietnam veteran.

Chapter 118 - An Act clarifying the statutory penalties for perjury before the State Ethics Commission.

Resolve of 1984

Resolve 8 - A Resolve reviving and contributing the special commission established to make an investigation and study relative to determining the adequacy of existing common law and statutory remedies available to the Commonwealth to recover its cost of assessing, containing, and removing oil and hazardous materials released or threatened to be released into the environment and to any other person for damages, injury, loss or harm suffered as a result of such release of oil or hazardous material.

Resolve of 1985

Resolve 1 - A Resolve reviving, continuing, and increasing the membership of certain special commissions.

REGULATORY BRANCH

Pollution abatement activities of the Regulatory Branch include the Operation and Maintenance, Discharge Permit Program, Ground Water Protection, Technical Assistance and Training, Compliance and Enforcement, and Engineering Sections.

OPERATION AND MAINTENANCE

To ensure an effective pollution abatement program, good operation and maintenance of the wastewater treatment plant is essential. While replacement and upgrading of outmoded and overloaded plants is scheduled, maintaining proper operational procedures minimizes environmental problems.

Via the following means, the Division encourages proper operation and maintenance of the wastewater treatment plants:

Plant Inspections

Field engineers conduct periodic inspections of the treatment plants to maintain adequate levels of compliance. Regulations, filed with the Secretary of State, define proper operation and maintenance of waste treatment systems.

Technical Assistance and Operator Training

Technical assistance, in terms of specific plant recommendations, is provided to improve the performance and standards of treatment plants. In addition, to increase efficiency, operator training courses and wastewater seminars are offered to treatment plant personnel.

Operator Certification

The mandatory operator certification program administers biannual examinations and interim emergency certifications to provide assurances that plant operators are qualified to assume responsibilities at the treatment plants.

Operating Records

From monthly operating reports, submitted for review, engineers are able to determine the efficiency of treatment, level of compliance, and possibility of problems.

Permit Discharge Program

Permits, required for all wastewater discharges into the waters of the Commonwealth, are issued through the National Pollutant Discharge Elimination System (NPDES), Sewer Extension and Connection Program, and the Ground Water Discharge Program. Permitting activities regulate effluent limitations, according to an established classification system for water resources.

Sewer Use Ordinances

The Division requires that municipalities enforce regulations for the control and use of public sewerage systems, designed to protect sewerage systems and ensure that discharged wastews do not inhibit satisfactory treatment plant performance.

PERMITS

The Federal Water Pollution Control Act Amendments of 1972 established a national discharge permit program to control all point discharges into the nation's waters. The Act provides that the permit program, or National Pollutant Discharge Elimination System (NPDES), be administered by the U.S. Environmental Protection Agency unless EPA has approved the administration of the program by the State. The 1977 Amendments to the Act state that it is the policy of Congress that the states take over the permit program.

In 1973 the Division and EPA Region I entered into an ageement for the issuance of joint permits under their respective statutory authorities. This agreement will remain in effect until the Commonwealth's permit program receives EPA approval. The application for delegation of the NPDES program was formally submitted on October 26, 1983 and subsequently, discussions ensued among the Division, the Attorney General's Office, and EPA Region I to resolve issues associated with the delegation process. Regulations establishing permit procedures, the surface and groundwater discharge permit programs, groundwater quality standards and requirements for hazardous waste management facilities were promulgated as a prerequisite for the delegation of the NPDES program. During FY'85 an amendment was submitted to the legislature, addressing legal issues associated with the Memorandum of Agreement, particularly in the areas of self-incrimination protection, confidentiality of information, and injunctive relief for threats of violations of the Act.

The 1972 Amendments to the Clean Water Act stipulated that permits could be issued for a period not to exceed five years. Consequently, many of the previously issued permits are now expiring. In addition, more stringent treatment requirements have become the new program goal, along with an increased emphasis on the control of toxic and hazardous pollutants. As a result, a new round of permit re-issuance is underway as well as continuation of initial issuance of industrial permits, usually non-contact cooling water discharges.

Since the inception of the joint permit issuance program, over 1200 permits have been issued or reissued by the Division and EPA. This includes permits for all major municipal and industrial dischargers in the Commonwealth. During the period from July 1, 1984 through June 30, 1985 51 NPDES permits were issued or reissued.

In addition to the NPDES permit program, over 2100 sewer extension or connection applications have been processed and more than 1900 water quality certifications have been issued under authority of Section 401 of the Federal Act, with 489 sewer permits and 196 water quality certifications issued during FY 1985.

NPDES Permits Drafted	60
NPDES Permits Issued	51
Sewer Extension/Connection Permits Issued	489
Water Quality Certifications Issued	196

GROUNDWATER PROTECTION

As part of a comprehensive DEQE groundwater management program to protect the Commonwealth's groundwater and surface water resources, the Division has developed a groundwater classification program and a permitting program for discharge of pollutants.

The Massachusetts Groundwater Quality Standards (314 CMR 6.00) and Groundwater Discharge Permit Program (314 CMR 5.00) were established in 1983 to address the issue of groundwater protection. Accomplishments in these programs include establishing a classification system for groundwaters, developing a groundwater discharge permit program, determining resource needs, and preparing a preliminary administrative program.

Groundwater management activities further advanced in analyzing the problems of permitting existing septage facilities, continued inventory and assessment of underground injection wells under the UIC program, and coordination of Title 5 (subsurface disposal of sewage) policies and practices.

Groundwater Permits Drafted	42
Groundwater Permits Issued	22

COMPLIANCE AND ENFORCEMENT

Frequent treatment plant inspections are utilized to maintain proper operational procedures and adequate levels of compliance. Enforcement action is taken to correct violations of permits, regulations, or other illegal activities. Actions include Notices of Violation, Administrative Orders, and referrals to the Attorney General's Office. During FY'85 29 Administrative Orders were issued and 15 cases were referred to the Department of the Attorney General for legal action.

TECHNICAL ASSISTANCE

The Technical Assistance and Training section provides technical assistance to wastewater treatment plants and training to the plant operators. Developmental activities of this unit have focused on staffing, personnel training, and establishing a central training facility. During FY 85 House Bill 121, necessary to construct the operator training center at the Upper Blackstone Water Pollution Abatement District, advanced to the House Ways and Means Committee.

Four operator training courses were offered to wastewater treatment plant operators with approximately thirty-five (35) persons attending each class. The twelve week sessions are conducted at the University of Lowell, University of Massachusetts at Amherst, Bridgewater State College, and the Marlboro Easterly Wastewater Treatment Facility. In addition, sixteen (16) seminars were conducted on wastewater related issues including: maintenance management, chemical conditioning of sludge, operation and maintenance of pumps, filter operations and performance, and NPDES laboratory procedures. Nearly five hundred (500) operators participated in these seminars.

Technical assistance, on site inspections, and operational evaluations were provided to the following treatment plants:

- Great Barrington WWTP
- Middlesex House of Correction
- Chatham WWTP
- Marion WWTP
- Foxborough WWTP
- Wrentham Mental Health Hospitals
- Mass. Maritime Academy
- Cohasset WWTP
- Abington - Woodsdale School
- Warren WWTP
- No. Brookfield WWTP
- Wareham WWTP
- Merrimack WWTP
- Somerset WWTP
- Ware WWTP

Staff members have also been involved in reviewing contract operations proposals, acquiring computerized equipment, establishing an Operator's Award Program for recognition of achievement, working with the Board of Certification on Grade requirements at public owned wastewater treatment plants, and implementing the diagnostic evaluation program to assess the standards and performance at wastewater treatment plants.

ENGINEERING

The Engineering Section approves reports and plans of pollution abatement facilities and inspects facilities for conformance with approved plans, according to Section 27(g) of the Mass. Clean Waters Act. During FY'85, 71 engineering reports and plans on industrial wastewater treatment were reviewed. The engineering staff also conducted 90 post construction inspections of industrial wastewater treatment plants for compliance with plans and reports. As needed, technical assistance and engineering expertise was provided to industries and their consultants.

Engineering Reports and Plans

Gloucester Water Pollution Control Facility-Gloucester
MDC - Industrial Waste Report #20
Microfab Inc. - Amesbury
Westford Anodizing Corp. - Westford
Baker Bros. Systems - Stoughton
City of Holyoke Gas & Electric
Cranke & Co. Inc - Dalton - preliminary
Whitman Plating Co., Inc. - Whitman
Polysar, Inc. - Leominster
Microwave - N. Andover
TWR - Cambridge
Congress Group - Boston
Ocean Spray - Carver - preliminary
Light Metal Platers - Waltham
Crane & Co., Inc. - Dalton - final
Roit (Carr Leather) Corp. - Cohasset
Ocean Spray - Carver - final
Coronet Leather Finishing Corp. - Georgetown
Nuclear Metals - Concord
Wyman Gordon - Grafton
Walton & Lonsbury - Attleboro
Cape Cod Potato - Barnstable
Coastal Metal -
C.G. Manufacturing - Taunton
Elbe Products - Fall River
Harodite Finishing - North Dighton
J.I. Paulding Company -
Kendall Company - Colrain
Leavens Manufacturing - Attleboro
MDC Semi-Annual Report
New England Plating - Worcester
Olin Chemicals Group - Wilmington
Plymouth Coated Products -
Powder Mill Plaza - Acton
Silicon Transistor Corporation -

Engineering Reports and Plans (Cont.)

Sheffield Silver
South Essex Sewerage District
Sweet Manufacturing
Texaco - South Boston
W.E. Wood Engineering - Holliston
New England Power - Brayton Point Station
Ocean Spray - Carver (report)
Raytheon - Lowell
Tweave - Norton
Compo Ind. - Lowell
Ocean Spray - Carver (plans)
Spencer Press - Hingham
Miscoe Beverage - Mendon
Holyoke Energy Resource Recovery
Northeast Utilities - Hadley Falls Project
Circle Finishing - Newbury
Monsanto - Everett
Maurofredes Bros. Inc.
Wang Laboratories - Lowell
Reliable Electroplating - Chartley
Microwave - North Andover (report)
Pharmasol Corp.
Auto Rolls of N.E. - Auburn
Photofabrication - Milford
Woodtec - Belchertown, Palmer & Ware
General Motors - Framingham
Worcester Spinning & Finishing Co., Inc - Worcester
Dedham Water Supply
Handy & Harman - North Attleboro
The Lobster Trap Inc. - Bourne
James River Pepperell Inc. - East Pepperell
Northeast Utilities - West Springfield
Robbins Company - Attleboro
Best Chevrolet - Hingham
Spaulding & Slye - North Reading - Wilmington
Corcoran Chelmsford Trust - Chelmsford

The Engineering Section provides technical support to the Permitting, Construction Grants, and Enforcement Sections, as well as to the Regional and Westboro Offices. The Engineering Section reviewed 43 industrial NPDES permits, 64 sewer connections and extensions, 17 groundwater or subsurface water permits, and 4 closure plans.

National Pollutant Discharge Elimination System (NPDES Permits)

Advance Coatings - Westminister
Bostik - Middleton
Boston Edison - Boylston Street
C.G. Manufacturing - Taunton
Corporate Center - Waltham

National Pollutant Discharge Elimination System (NPDES) Permits Cont.

Dedham Water Company
Gilet Wool Scouring Corporation - North Chelmsford
Guilford Industries - Douglas
ITT Suprenant Division
MBTA - Boston & Maine
MBTA - North Station
Polysar Incorporated
Raytheon - Sudbury
Raytheon - Wayland
Rosemar Silver Company - North Dighton
St. Benedict - Still River
Silicon Transister Corp.
Simplex Time Recorder Co., Inc.
Whitman Plating
William Wright Company
Gloucester Corporation - Lynn
Foxboro Company - Cohasset
Incubator Associate - Charlestown
Sweetheart Plastics, Inc. - Wilmington
The Hilsinger Corporation - Plainville
Westford Anodizing Corporation - Westford
Maoson Manufacturing-L.S. Peterson - North Attleboro
Cornell-Dubilier Electric - New Bedford
Corcoran Chelmsford Trust - Chelmsford
Cambridge Bio-Science Corp - Cambridge
Attleboro City
City of Newburyport
Town of Adams
Greater Lawrence Sanitary District
Reliable Electrofinishing - Canton
Northrop Corp. - Norwood
Boston Edison - New Boston Station
Foxboro Co. - East Bridgewater
Microfab, Inc. - Amesbury
Silicon Transistor Corp. - Chelmsford
Vernon Plastics, Corp. - Haverhill
Conductor Lab Inc. - Groton
General Electric - Lynn

Sewer Connections

Intercircuits Inc. - Woburn
Kludjian - Lowell
DPW Commissioner - New Bedford
Alpha Ind. Inc. - Methuen
Ken's Foods Inc. - Marlborough
Fortin Ind. - Chicopee
International Clinical Laboratory - Randolph
EMC - Amesbury
Harodite Finishing - Taunton

Sewer Connections (Cont.)

Omega Processing - Monson
William Tonner Co. - Lowell
Auto Rolls of N.E. - Auburn
Synthetic Lab. Inc. - Dracut
Superior Printing - Marlborough
Eastern Manufacturing Corporation - Amesbury
Photofabrication Engineering Inc. - Milford
Spire-Trust Corporation - Bedford
Aegis Incorporated - New Bedford
Roy Brothers - Billerica
Norton Company - Worcester
Sweetheart Plastics - Wilmington
Breakwater Realty Trust - Rockland
Warburton Bakery - Somerville
Mercury Anodizing - Newburyport
Polyplate Incorporated - Northbridge
Connolly Wright Trust - Gloucester
Duralectra, Incorporated - Natick
Acme Laundry Company - Hyannis
Screenprint-Dow Industries - Wilmington
D Ehart-The Laundry Room - Hyannis
North American Philips Light - Lynn
Polaroid - Cambridge
Royce Aluminum - Taunton
Wang Laboratory - Lowell
Altron Company - Wilmington
BLH Electronics - Canton
Boston University - Boston
Commercial Sheetmetal - Canton
Campo Industries
GTE - Ipswich
Hamblet and Hayes - Salem
Harvard Community Health - Boston
Horn Corporation
Leachate Control System - Greenfield
Leavens Manufacturing - Attleboro
Lynn Water Treatment
M&V Electroplating - Newburyport
Microfab - Amesbury
NESWC Resource Recovery Facility - North Andover
Synthetic Labs, Inc. - Dracut
Boston Envelop - Canton
Wang Lab - Lowell
Town of Clinton
B&B Quality Dye Works - Ware
Romar Technologies, Inc. - Salem
Spi-Trust - Bedford
Alternate Circuit Tech - Haverhill
Wyman Gordon - Millbury
Pittsfield Water Treatment Plant
Dalton Water Treatment Plant
Riviera Realty Trust - Waltham
Howard H. Sweet & Son - Attleboro
Fitchburg Landfill
Reliable Homes - New Bedford

Sub-Surface or Groundwater Discharge Permits

Halliday Lithograph - Hanover
Brookfield Wire Co., Inc. - Brookfield
Bay State Circuit - Northboro
Axton-Cross - Holliston
W.R. Grace Company - Adams
Plymouth Coated Products - Plymouth
Bostik
Raytheon - Sudbury
Baker Bros. Systems - Stoughton
Cape Cod Potato Chip - Barnstable
Lowden Incorporated
Manville Building Materials Corporation - Billerica
Microwave Research - Andover
Pharmasol
Still Water Fasteners
Sweet Manufacturing
Worcester Control Corporation

Closure Plans

James River - Fitchburg
Walton & Lonsbury - Attleboro
Reliable Electroplating - Chartley
Seekonk Manufacturing - Seekonk

Pretreatment programs are developed by local government and municipalities as required by the Clean Waters Act of 1977 and the General Pretreatment Regulations for Existing and New Sources of Pollution of 1978. The pretreatment programs, submitted to the Construction Grants section, are then reviewed by Engineering. During FY 85, Engineering reviewed 14 pretreatment plans for the following communities:

North Attleboro
Billerica
Brockton
Clinton
Chicopee
Amesbury
Holyoke
Marlboro
SESD
South Hadley
Springfield
Webster-Dudley
Southbridge
South Deerfield

Technical assistance is provided to Enforcement in the preparation of evidence and oversight of remedial measures. During FY 85, 29 Administrative Orders were issued and 15 cases were referred to the Attorney General's Office.

Tax benefits to industries installing pollution abatement facilities are provided by Chapter 63 and Chapter 59 of the General Laws. Industries wishing to apply for these benefits require certification from the Division that the facilities are effective in controlling water pollution to an acceptable level and comply with applicable provisions of the Mass. Clean Waters Act. During the period of July 1, 1984 through June 30, 1985, the following companies were granted tax certification.

Tax Certifications

Wang Lab - Lowell
Seaman Paper - Otter River
New England Power - Salem Station
Polaroid - Waltham
Erving Paper - Templeton
Erving Paper - Erving
House Bill H2114, H2082
Digital - Hudson
Howard Johnson - Chelmsford
Salem Power Company
Boston Edison - Everett

The Engineering Section participates in the Water Toxics Work Group, convened in November of 1983, to develop methodology to control toxics in wastewater, determine priorities, and investigate the use of toxicity testing. The Engineering section assisted in formulation of a toxic program developed in conjunction with other sections of Water Pollution Control.

Current engineering expertise and innovation in industrial wastewater treatment is essential to providing state of the art technical assistance. During FY 85, the Engineering section participated in 5 seminars and conferences, and presented 2 reports on industrial waste development.

MUNICIPAL WASTEWATER TREATMENT FACILITIES

STATE/EPA CONSTRUCTION GRANTS PROGRAM

Under the Massachusetts Clean Water Act (M.G.L. Chapter 21) as amended, the Commonwealth provides financial assistance to municipalities and districts for water pollution abatement projects. This program encompasses the planning, design and construction of wastewater treatment facilities, major pumping stations, interceptor sewers, infiltration/inflow correction and rehabilitation work. For the planning and design phases of these facilities, the Division provides a ninety percent (90%) state planning advance; during this past year, thirty-four of these advances were made, totalling almost six million dollars.

The Division of Water Pollution Control, pursuant to an agreement between the Department of Environmental Quality Engineering and the Environmental Protection Agency, is delegated the responsibility for administration of the Federal grant program which entails most of the procedures necessary for the award of EPA construction grants to projects in the Commonwealth of Massachusetts. Under this program, the state provides a fifteen percent (15%) grant coupled with a seventy-five percent (75%) EPA grant. Through this joint program, Thirteen grants were made for construction during the past year, representing nineteen million dollars in state grants and fifty-seven million dollars in EPA grants.

ENGINEERING REPORTS AND FACILITIES PLANNING PROJECTS
APPROVED DURING FISCAL YEAR 1985

<u>GRANT NO.</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>APPROVAL DATE</u>
631	Acton	Facility Plan	7/2/84
744	Arlington	SSES	5/3/85
624	Ashland	User Charge Report	3/28/85
424	Barnstable	Preliminary Plan of Operation	3/4/85
443	Bellingham	Facilities Plan	2/15/85
657	Billerica	Facility Plan	11/27/84
784	Burlington	I/I Analysis	3/26/85
726	Canton	SSES Interim Report No. 1 & 2	3/25/85
304	Clinton (MDC)	Plan of Operation	5/22/85
808	Everett	I/I Analysis	4/29/85
635.01	Fairhaven	Facilities Plan	8/27/84
325	Falmouth	User Charge System	4/30/85
329-04	Gardner	Sewer Use Ordinance	8/1/84
329-04	Gardner	User Charge System	8/16/84
750	Groton	Facility Plan	6/15/85
729	Hamilton	Facility Plan	7/12/84
338	Hudson	Plan of Operation	5/22/85
378-02	Leicester	Sewer Use Ordinance	10/19/84
378-02	Leicester	User Charge System	10/19/84
336	Leominster	Sewer Use Ordinance	5/9/85
336	Leominster	User Charge Study	5/22/85
727	Lunenburg	Facility Plan	6/14/85
617	Manchester	Facility Plan	8/22/84

<u>GRANT NO.</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>APPROVAL DATE</u>
745	MDC	Wellesley Ext. Facility Plan	1/20/85
701	MDC	Framingham Ext. V.E.	10/9/84
701	MDC-Framingham Ext.	Facility Plan	10/19/84
731	MDC	East Boston P.S. V.E.	2/20/85
680	Middleton	Facility Plan	11/27/84
309	Milford	Final Plan of Operation	12/05/84
465	Millis	SUO	8/9/84
602	Milton	Facilities Plan	2/14/85
409	Newton	Facility Plan	1/10/85
409	Newton	SSES	10/10/84
474	New Bedford	Plan of Operation Bellevue Ave. P.S.	12/31/84
660-01	North Brookfield	SSES	7/23/84
485.01	Oaks Bluffs	Facilities Plan	7/10/84
834	Peabody	User Charge	9/10/84
656	Rockport	Plan of Operation	11/28/84
686	Rutland	Facility Plan	9/10/84
454	Salisbury	Plan of Operation	6/28/85
454	Salisbury	User Charge	6/27/85
454	Salisbury	V.E.	6/27/85
469.03	Scituate	WWTP O & M Manual	7/31/84
469	Scituate	Final O & M Manual	9/21/84
446	Shrewsbury	SSES	12/28/84
674-01	Southbridge	Facilities Plan	8/13/84

<u>GRANT NO.</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>APPROVAL DATE</u>
674-01	Southbridge	SSES	8/2/84
367.02	Spencer	Conceptual Design Report	4/9/85
781	Tyngsborough	Facility Plan	9/11/84
412	Watertown	Facility Plan	8/22/84
450	Wayland/Sudbury	O & M Manual	3/5/84
645-01	Westfield	SSES	7/13/84
331-01	Westfield	Facilities Plan	9/4/84
665	Whitman	Sewer Use Ordinance	11/14/84
665	Whitman	User Charges Report	12/5/84
665	Whitman	Preliminary Plan of Operation	1/11/85
747	Winchester	Sewer Use Ordinance	10/16/84
785	Woburn	I/I Analysis	10/12/84

FINAL CONTRACT PLANS AND SPECIFICATIONS
REVIEWED AND APPROVED DURING FISCAL YEAR 1985

<u>GRANT NO.</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>APPROVAL DATE</u>
424	Barnstable	Cont. No. 84-1, Septage/Odor Treat.	11/14/84
341	B.W.S.C.	Cont. No. 4B	3/25/85
341	B.W.S.C.	Cont. No. 3B	7/5/84
791	B.W.S.C.	Cont. No. 81-750	9/17/84
791	B.W.S.C.	Cont. No. 83-385	9/17/84
WPC-74-5	Chicopee	Brightwood Int.	3/20/85
671	Concord	Cont. No. 4	4/18/85
515	Fall River	Cont. No.1, Wilson & President P.S.'s	10/15/84
717	Framingham	Farm Pond Int.	9/18/84
329-02	Gardner	Wastewater Treatment Facility	8/2/84
252	G.L.S.D.	Cont. No. 1	10/16/84
252	G.L.S.D.	Cont. No. 2	10/16/84
677	Haverhill	Alpha Street Int.	4/12/85
338	Hudson	Cont. No. 93	9/27/84
338	Hudson	South Street Ext.	9/27/84
535	Malden	Cont. No. 84-1	5/15/85
345.02	Mansfield	Cont. No. 6, West St.- Spring St. Int.	9/28/84
655	M.D.C.	Bedford P.S.	11/2/84
752	M.D.C.	Reading, F.M.	2/6/85
752	M.D.C.	Reading, P.S.	2/6/85
643	M.D.C.	Constitution Beach, CSO	9/14/84
475.05	New Bedford	Existing W.W.T.P. Improvements	8/9/84

<u>GRANT NO.</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>APPROVAL DATE</u>
524	Orleans	Phase 1 - W.W. Collection	5/30/85
469	Scituate	Contract No's. 80-2 to 80-9	1/11/85
674-02	Southbridge	Wastewater Treatment Facility	8/13/84
674-02	Southbridge	Interceptor Sewers and Syphons	8/13/84
674-02	Southbridge	Rehabilitation of Existing Sewers	8/13/84
298-01	South Hadley	Stony Brook P.S. Conversion	3/13/85
376	Sturbridge	Sludge Truck	9/4/84
415.03	Walpole	Cont. No. 6, West Walpole Laterals	1/3/85
415	Walpole	Cont. No. 5, South Walpole Laterals	1/23/85
550	Wareham	Garage WWTP Cont. No. 84-1 and PTA	11/26/84
551	Warren	CSO Sewer Separ. and Replacement Cont. No.1	9/26/84
331-03	Westfield	Great Brook Int.	5/13/85
331-03	Westfield	Great Brook Pump Sta.	5/13/85
331-02	Westfield	Westfield River Int.	8/7/84
665.02	Whitman	Contract No.1 to 7	5/1/85

REVIEW AND APPROVAL OF
BIDDING PROCEDURE AND AWARD OF CONTRACT
DURING FISCAL YEAR 1985

<u>WPC #</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>AWARD DATE</u>	<u>AWARD AMOUNT</u>
475-03/1	Acushnet	Int.	4/10/85	1,381,995
295/16	Attleboro	Furn. Vehicles	1/31/85	139,834
389/1	Bedford	Rehab.	5/20/85	61,393
341/3B	B.W. & S.	Interceptor	1/24/85	3,229,367
510/SD-3	B.W. & S.	Sewer & Drain	7/2/84	3,310,258
791/83-385D	B.W. & S.	Water & Sewer	4/22/85	338,475
308/2	Brockton	Rehab.	6/3/85	552,395
308-02	Brockton	Vehicles Equip.	8/18/84	62,165
308-02	Brockton	Lab. Equip. & Material	8/18/84	42,000
308-02	Brockton	Misc. Furniture & Equipment	8/18/84	17,850
308-02	Brockton	Misc. Furniture & Equipment	2/28/85	3,936
649/59552	Clinton	Rehab.	5/22/85	57,250
671/1	Concord	W.W.T.P.	3/11/85	8,933,000
671/2	Concord	P.S. & F.M.	3/11/85	804,955
654/2	Comm. of Mass. DMH Fernald School	W.W.T.P.	11/26/84	1,417,726
325/2A	Falmouth	P.S.	12/12/84	738,500
325/4	Falmouth	P.S.	9/26/84	887,280
325/7	Falmouth	Int., F.M. & Lat.	9/26/84	1,117,427
252/2	G.L.S.D.	Interceptor	4/10/85	5,450,777
252/1	G.L.S.D.	Interceptor	4/18/85	885,247

<u>WPC #</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>AWARD DATE</u>	<u>AWARD AMOUNT</u>
285/1	Hatfield	W.W.T.P.	4/10/85	2,997,395
285/2	Hatfield	F.M. & P.S.	4/10/85	2,523,297
338/93	Hudson	(Assabet Riv.)	4/22/85	467,770
338/-	Hudson	(South St.)	4/22/85	60,409
338/93	Hudson	W.W.T.P.	7/12/84	9,762,000
637/17	Lowell	Int.	4/8/85	6,680,410
345/3	Mansfield	Sludge Landfill	7/10/84	396,000
345/5	Mansfield	Furn. Vehicles	1/4/85	320,696
655/C1A	M.D.C.	Mill Brook Valley Int.	9/6/84	4,547,896
670/C-5	MDC-Nut Island	Sedimentation Tanks	8/16/84	2,997,000
713/C1A	MDC-D.I.	Sludge Thickener	4/5/85	1,487,000
655/C2A	MDC-Bedford	P.S.	2/21/85	684,750
643/C1A	MDC-Const. Beach	C.S.O.	6/27/85	1,096,000
547	Comm. of Mass. Medfield State Hospital	F.M. & P.S.	9/12/84	724,460
474/2	New Bedford	P.S.	1/24/85	1,279,607
296/9	Northampton	Int.	8/18/84	551,940
521/1	Revere	Rehab.	10/1/84	372,511
499/1	Saugus	Pump Sta.	9/10/84	3,757,619
499/2	Saugus	F.M.	5/29/85	2,476,966
446/1	Shrewsbury	Int.	5/13/85	417,880
674/1	Southbridge	Int.	5/10/85	1,644,440
674/2	Southbridge	Rehab.	5/10/85	1,193,655
674/3	Southbridge	W.W.T.P.	5/10/85	15,023,300
431/1	Stockbridge	W.W.T.P.	11/2/84	2,965,083

<u>WPC #</u>	<u>MUNICIPALITY</u>	<u>PROJECT DESCRIPTION</u>	<u>AWARD DATE</u>	<u>AWARD AMOUNT</u>
431/2	Stockbridge	Int.	11/2/84	922,394
431/3	Stockbridge	Int.	11/2/84	361,900
431/5	Stockbridge	Rehab.	11/2/84	372,665
681/1	Stoneham	P.S.	2/20/85	846,605
415-03/1	Walpole	Int.	7/27/84	2,481,041
415-03/7	Walpole	Rehab.	7/25/84	45,642
415-03/2	Walpole	Int.	5/20/85	1,679,300
551/1	Warren	Mod. to W.W.T.P.	5/14/85	667,940
636-01	Webster	Sludge Handling Facility	10/26/84	3,020,000
448/83-1	Westboro	W.W.T.P.	10/5/84	23,398,000
774/1	Westboro	Int.	5/30/85	677,205
331/84-1	Westfield	Int.	1/24/85	2,389,404
413/10	Westwood	Laterals	11/7/84	566,200
687/59537-A	Winthrop	P.S & Sewers	9/10/84	1,523,688
348/15	Worcester	Int.	11/1/84	645,525

Federal Water Pollution Control Act As Amended

FEDERAL GRANTS - CONSTRUCTION (STEP 3)

NO.	GRANTEE	TOTAL COST	ELIGIBLE COST	FED. GRANT
671-02	Concord	\$13,286,777.	\$12,991,402.	\$10,026,244.
285-03	Hatfield	\$ 5,790,260.	\$ 5,717,835.	\$ 4,297,419.
331-02	Westfield	\$ 3,608,716.	\$ 3,582,091.	\$ 2,812,651.
475-02	Acushnet	\$ 1,891,660.	\$ 1,698,365.	\$ 1,273,774.
643-02	MDC	\$ 728,265.	\$ 727,385.	\$ 545,539.
329-04	Gardner	\$14,267,404.	\$14,045,844.	\$10,541,402.
791-02	BWSC	\$ 736,098.	\$ 670,426.	\$ 502,820.
674-02	Southbridge	\$15,337,594.	\$15,110,894.	\$11,599,956.
640-02	MDC	\$ 3,966,423.	\$ 3,866,423.	\$ 2,899,817.
713-01	MDC	\$ 1,500,000.	\$ 1,500,000.	\$ 1,125,000.
687-03	Winthrop	\$ 3,759,440.	\$ 3,578,040.	\$ 1,967,922.*5
341-06	BWSC	\$ 7,160,916.	\$ 6,987,482.	\$ 5,240,611.
665-02	Whitman	\$13,428,883.	\$ 8,783,782.	\$ 4,805,475.*5
	TOTALS	\$85,462,436.00	\$79,259,969.00	\$57,638,630.0

STATE PLANNING ADVANCES - PRELIMINARY PLANNING (STEP 1)

NO.	GRANTEE	TOTAL COST	ELIGIBLE COST	ADVANCE
812	Hingham	\$115,643.	\$115,643.	\$104,079.
675	Seekonk	\$138,706.	\$138,706.	\$ 57,676.
679	Wareham	\$183,345.	\$180,980.	\$162,882.
818	So. Hadley	\$ 98,716.	\$ 98,716.	\$ 88,844.
782	Arlington	\$100,700.	\$100,700.	\$ 90,630.
816	Swampscott	\$ 35,100.	\$ 35,100.	\$ 31,590.
817	Holbrook	\$103,000.	\$101,100.	\$ 90,990.
823	Framingham	\$105,038.	\$ 94,535.	\$ 85,082.
819	Agawam	\$ 72,966.	\$ 72,966.	\$ 65,669.
830	Worcester	\$ 34,581.	\$ 34,581.	\$ 31,123.
719	Belmont	\$ 37,000.	\$ 37,000.	\$ 33,300.
733	B.W.S.C.	\$603,541.	\$603,541.	\$543,187.
831	No. Attleborough	\$ 57,000.	\$ 49,598.	\$ 44,638.
828	Amherst	\$199,400.	\$199,400.	\$179,460.
821	Milford	\$ 49,514.	\$ 44,333.	\$ 39,900.
824	W. Stockbridge	\$ 27,910.	\$ 27,910.	\$ 25,119.
827	Easthampton	\$ 76,490.	\$ 76,490.	\$ 68,841.
820	Athol	\$ 87,782.	\$ 86,482.	\$ 77,854.
833	Amesbury	\$ 53,115.	\$ 50,615.	\$ 45,554.
834	Peabody	\$ 65,300.	\$ 65,300.	\$ 58,770.
832	Brewster	\$ 70,666.	\$ 70,666.	\$ 63,599.
554	Plymouth	\$ 25,000.	\$ 25,000.	\$ 22,500.
807	Randolph	\$ 87,855.	\$ 87,855.	\$ 79,070.
	TOTAL	\$2,428,368.00	\$2,397,217.00	\$2,090,337.00

STATE PLANNING ADVANCES - FINAL PLANNING (Step 2)

NO.	GRANTEE	TOTAL COST	ELIGIBLE COST	ADVANCE
713	MDC	\$2,026,575.	\$1,599,019.	\$1,439,117.
500	Lexington	\$ 27,708.	\$ 20,946.	\$ 18,851.
745	MDC	\$1,183,737.	\$1,060,588.	\$ 954,529.
524	Orleans	\$ 356,000.	356,000.	\$ 320,400.
336	Leominster	\$ 262,066.	\$ 262,066.	\$ 235,859.
799	Norwood	\$ 48,316.	\$ 48,316.	\$ 43,484.
602	Milton	\$ 150,146.	\$ 150,146.	\$ 135,131.
443	Bellingham	\$ 97,090.	\$ 70,928.	\$ 63,835.
658	Foxborough	\$ 128,571.	\$ 121,531.	\$ 63,234.
837	Salem	\$ 148,830.	\$ 73,897.	\$ 66,507.
328	Chelmsford	\$ 590,980.	\$ 496,691.	\$ 447,022.
	TOTALS	\$5,020,019.00	\$4,260,128.00	\$3,787,969.00

STATE GRANTS - *CONSTRUCTION (STEP 3)

*(Costs include preliminary/final planning)

NO.	GRANTEE	TOTAL COST	ELIGIBLE COST	STATE GRANT
671	Concord	\$14,176,476.	\$13,636,279.	\$2,365,098.
285	Hatfield	\$ 6,664,112.	\$ 6,559,904.	\$ 978,559.
331	Westfield	\$ 4,093,380.	\$ 4,049,301.	\$ 722,339.
475	Acushnet	\$ 2,020,029.	\$ 1,804,421.	\$ 305,385.
643-02	MDC	\$ 2,364,225.	\$ 2,311,554.	\$ 341,110.
329	Gardner	\$16,900,319.	\$18,488,825.	\$2,769,113.
791	B.W.S.C.	\$ 736,098.	\$ 670,426.	\$ 94,657.
674	Southbridge	\$15,977,014.	\$15,727,639.	\$2,384,526.
640	MDC	\$ 5,879,139.	\$ 5,739,669.	\$ 833,437.
713	MDC	\$ 5,268,571.	\$ 4,417,128.	\$2,850,415.
637	Winthrop	\$ 3,603,600.	\$ 3,422,200.	\$1,197,770.
85	Sutton	\$ 30,000.	30,000.	\$ 30,000.
341-06	B.W.S.C.	\$ 7,160,916.	\$ 6,987,482.	\$1,048,122.
665	Whitman	\$14,482,243.	\$ 9,380,378.	\$3,147,519.
	TOTALS	\$99,356,122.00	\$93,225,206.00	\$19,068,050.00

CONSTRUCTION GRANTS PROGRAM
BOND FUND
STATE PAYMENTS TO CITIES, TOWNS AND DISTRICTS
FISCAL YEAR ENDING JUNE 30, 1985

<u>WPC No.</u>	<u>MUNICIPALITY</u>	<u>FY STATE PAYMENTS</u>
733	Abington	\$ 3,777
792	Acton	71,511
809	Adams	41,499
741	Amesbury	4,019
272	Amherst	597,610
530	Andover	1,214
744	Arlington	20,913
526	Ashfield	39,170
295	Attleboro	40,643
380	Auburn	21,624
424	Barnstable	348,000
316	Barre	14,248
387	Bedford	1,193
396	Beverly	112,527
81	Billerica	37,340
657	Billerica	108,946
B34	Boston Water & Sewer	98,233
B35	Boston Water & Sewer	1,090,367
733	Boston Water & Sewer	125,172
810	Braintree	21,117
516	Bridgewater	317,870
308	Brockton	153,584
545	Brookfield	35,134
793	Brookline	85,134
489	Buckland	11,007
784	Burlington	45,029
534	Cambridge	22,178
695	Cambridge	50,220
726	Canton	998
627	Charlemont	29,294
467	Charles River Pollution Control	104,789
746	Charles River Pollution Control	142,879
556	Chatham	1,662
546	Cherry Valley Sewer District	9,540
671	Concord	44,919
79	Deerfield	25,000
480	Dighton	107,043
490	Erving	2,834
808	Everett	60,156
635	Fairhaven	265,614
325	Falmouth	1,029,288
728	Fitchburg	17,023
717	Framingham	22,758
823	Framingham	69,541
632	Franklin	1,182

<u>WPC NO.</u>	<u>MUNICIPALITY</u>	<u>FY STATE PAYMENTS</u>
329	Gardner	\$ 55,110
317	Gill	61,666
78	Gloucester	76,772
271	Grafton	69,567
487	Great Barrington	34,995
252	Greater Lawrence Sanitary Dist.	51,716
780	Greater Lawrence Sanitary Dist.	348,347
359	Greenfield	21,286
750	Groton	1,173
693	Hadley	12,870
285	Hatfield	6,799
340	Haverhill	119,086
677	Haverhill	9,991
678	Haverhill	153,779
812	Hingham	36,562
817	Holbrook	28,147
603	Holden	133,345
83	Hoosac Water Quality Dist.	50,000
294	Hopedale	84,019
338	Hudson	541,793
300	Hull	595,651
802	Hull	62,422
378	Leicester	195,731
451	Lawrence	3,408
625	Lenox	23,024
806	Lenox	26,325
336	Leominster	442,717
375	Longmeadow	92,549
637	Lowell	426,283
582	Ludlow	40,783
283	Lynn Water & Sewer	1,168,935
398	Manchester	11,412
617	Manchester	15,285
345	Mansfield	432,151
561	Marlborough	10,070
753	Marlborough	96,470
311	Mattapoisett	8,463
724	Maynard	293,308
405	Medford	58,223
749	Melrose	3,223
453	Merrimac	124,959
393	Methuen	85,995
226	MDC	1,345,223
304	MDC	154,187
529	MDC	314,927
655	MDC	191,771
670	MDC	116,281
701	MDC	223,053
713	MDC	413,314
731	MDC	497,306
732	MDC	30,627
745	MDC	4,824
752	MDC	231,798
760	MDC	300,024
789	MDC	97,386

<u>WPC NO.</u>	<u>MUNICIPALITY</u>	<u>FY STATE PAYMENTS</u>
814	Middleborough	\$ 19,862
680	Middleton	142,897
309	Milford	1,145,595
381	Millbury	12,666
562	Millbury	7,905
465	Millis	223,553
602	Milton	724
751	Montague	38,077
708	Montague	129,583
790	Nahant	31,867
473	Nantucket	77,527
811	Natick	33,321
804	Needham	98,994
N74	New Bedford	168,099
N76	New Bedford	184,167
710	New Bedford	29,177
409	Newton	112,868
296	Northampton	167,351
595	North Attleboro	11,828
382	Northbridge	9,590
799	Norwood	68,352
485	Oak Bluffs	5,371
698	Orange	11,816
524	Orleans	56,440
787	Pittsfield	24,584
626	Plainville	1,827
554	Plymouth	19,537
406	Quincy	248,328
696	Quincy	86,671
521	Revere	22,998
394	Rockport	195,290
656	Rockport	230,838
652	Salem	13,391
454	Salisbury	210,685
499	Saugus	105,536
469	Scituate	51,012
488	Shelburne	10,179
446	Shrewsbury	4,922
663	Somerset	320,035
674	Southbridge	93,004
222R	South Essex Sewerage Dist.	30,975
456	South Essex Sewerage Dist.	13,678
800	South Essex Sewerage Dist.	147,191
298	South Hadley	37,247
367	Spencer	198,412
431	Stockbridge	220,062
681	Stoneham	2,711
797	Stoughton	60,418
376	Sturbridge	139,041
290	Sutton	34,758
816	Swampscott	17,114
302	Taunton	244,437
479	Taunton	146,338
756	Upper Blackstone Water Pollution Abatement District	9,563
383	Upton	33,462

<u>WPC NO.</u>	<u>MUNICIPALITY</u>	<u>FY STATE PAYMENTS</u>
796	Wakefield	\$ 70,830
415	Walpole	460,369
343	Waltham	16,250
79	Ware	877,980
679	Wareham	35,744
551	Warren	2,509
412	Watertown	112,017
636	Webster	81,455
689	Webster	4,550
598	Wellesley	178,261
723	Wellfleet	13,643
448	Westborough	456,830
331	Westfield	60,278
346	Westfield	2,137
664	Westminster	40,183
497	West Springfield	7,640
700	West Stockbridge	1,264
413	Westwood	97,732
801	Westwood	33,601
798	Weymouth	48,336
665	Whitman	29,814
699	Wilbraham	46,199
608	Williamstown	107,401
754	Williamstown	1,898
805	Wilmington	17,407
794	Winthrop	223,486
687	Winthrop	65,665
785	Woburn	4,696
W34	Worcester	326,878
W47	Worcester	394,779
347	Worcester	474,967

\$25,545,603

DIVISION OF WATER POLLUTION CONTROL
WASTEWATER TREATMENT FACILITIES CONSTRUCTION PROGRAM
STATE GRANT PROGRAM
SUMMARY OF CONSTRUCTION GRANTS AS OF JUNE 30, 1985

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
483	Abington	1981	CS		1,697,198	15%	254,580
475	Acushnet	1985	PS-FM		1,804,421	17%	305,385
79-2	Adams	1980	T-MOD	Complete	438,704	90%	394,834
169	Adams	1968	T-P-INT-FM	Complete	3,446,912	25%	866,728
282	Agawam	1975	P-FM	Complete	1,037,309	15%	155,596
73-1	Agawam	1972	INT-P	Complete	790,000	90%	711,000
220	Agawam	1971	P-EGU	Complete	37,732	25%	9,433
374	Agawam	1977	P-FM-INT		1,611,400	15%	241,710
639	Amesbury	1981	SEWER REHAB		562,781	15%	84,417
692	Amesbury	1980	INT	Complete	185,474	15%	27,821
555	Amesbury	1977	P-FM-INT	Complete	1,527,876	15%	229,181
452	Amesbury	1977	INT-P-FM	Complete	2,044,337	15%	306,651
244	Amesbury	1979	T-PS-FM-INT-OUT	Complete	2,699,300	35%	944,755
517	Amherst	1977	P	Complete	335,214	15%	50,282
333	Amherst	1976	INT	Complete	816,870	15%	122,531
272	Amherst	1974	P-OUT	Complete	12,754,066	15%	1,913,110
73-2	Amherst	1972	P-FM	Complete	614,780	90%	553,302
526	Ashfield	1984	INT-PS		1,069,391	15%	163,381
362	Athol	1983	T-MOD		1,734,070	17%	300,505

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
193	Athol	1970	T-P-FM-INT-OUT	Complete	1,232,965	25%	308,241
295	Attleboro	1977	T-P-PS-FM-INT-CS		30,813,776	15%	4,659,191
531	Auburn	1977	GS-FM-ES		4,670,200	15%	700,530
380	Auburn	1977	PS-ES	Complete	5,110,266	15%	766,540
211	Auburn	1971	PS-FM-INT	Complete	1,861,652	25%	465,413
323	Ayer	1979	T-INT-PS-FM-LS		15,229,585	15%	2,284,438
195	Ayer	1969	T-MOD	Complete	59,873	25%	14,968
424	Barnstable	1978	T-MOD		15,652,589	15%	2,574,215
178	Barnstable	1968	T-MOD	Complete	256,276	25%	64,069
207	Bedford	1971	PS-FM	Complete	1,044,464	25%	261,116
387	Bedford	1982	SEWER REHAB		238,268	15%	35,740
437	Belchertown	1977	T		320,404	15%	48,060
396	Beverly	1982	INT-PS-FM-S		7,923,538	15%	1,188,531
81-1	Billerica	1982	PS-SRS		613,000	82%	500,000
248	Billerica	1973	T-MOD	Complete	1,632,160	35%	571,256
171	Billerica	1969	PS-FM	Complete	458,972	25%	114,743
388	Billerica	1977	INT-FM-PS-LS	Complete	7,312,236	15%	1,096,835
299	Blackstone	1981	LS-PS-INT		2,109,900	15%	316,485
B-41	Boston W. & S.C.	1982	INT		4,236,180	15%	635,427
B-34	Boston W. & S.C.	1982	INT		6,842,298	15%	1,026,345
B-35	Boston W. & S.C.	1983	INT		36,724,975	15%	5,508,746

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
341-06	Boston W. & S.C.	1985	INT		6,987,482	15%	1,048,122
510-03	Boston W. & S.C.	1978	SEWER SEP		11,495,626	15%	1,724,344
510-02	Boston W. & S.C.	1978	SEWER SEP		9,343,500	15%	1,401,525
509	Boston W. & S.C.	1978	SEWER SEP		4,474,169	15%	671,125
791	Boston W. & S.C.	1985	LS		670,426		94,657
159	Braintree	1969	INT	Complete	97,659	27%	29,368
156	Brockton	1968	INT	Complete	448,128	30%	134,438
308	Brockton	1977	T-MOD		50,170,045	15%	5,712,472
230	Buckland	1972	T-INT-OUT	Complete	659,363	35%	230,777
489	Buckland	1982	SEWER REHAB		99,923	15%	14,988
695	Cambridge	1980	SEWER SEP	Complete	1,992,234	15%	298,835
534	Cambridge	1978	SEWER SEP	Complete	1,685,784	15%	252,869
533	Cambridge	1978	SEWER SEP	Complete	390,394	15%	58,559
350	Cambridge	1977	SEWER SEP	Complete	459,653	15%	68,948
351	Cambridge	1977	SEWER SEP	Complete	3,366,911	15%	505,037
297	Charles River P.C.D.	1977	T		21,098,770	15%	3,164,815
467	Charles River P.C.D.	1984	INT		1,148,050	19%	214,392
200	Chatham	1970	T-PS-FM	Complete	1,148,050	25%	387,920
239	Chicopee	1972	PS-FM-INT	Complete	638,334	35%	223,417
104	Chicopee	1968	T-OUT-INT	Complete	4,066,567	30%	1,219,970
74-5	Chicopee	1978	INT-PS-T-MOD		14,412,000	90%	12,970,800
649	Clinton	1981	SEWER REHAB.		204,206	19%	38,672

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
170	Cohasset	1968	T-INT	Complete	497,377	25%	124,344
166	Concord	1970	T-MOD	Complete	61,928	25%	15,482
671	Concord	1984	T		13,892,661	17%	2,403,555
165	Dartmouth	1968	T-PS-INT	Complete	4,887,576	25%	1,121,894
423	Dartmouth	1977	CS-LS	Complete	6,395,642	15%	959,346
79-4	Deerfield	1980	T-MOD	Complete	649,417	77%	500,000
197	Deerfield	1970	T	Complete	1,443,276	25%	360,819
480	Dighton	1980	CS		2,308,636	15%	346,295
245	Douglas	1973	T-INT	Complete	892,723	35%	312,453
519	Dracut	1978	INT-LS-PS-FM		11,163,397	15%	1,674,509
185	Dudley	1969	INT-PS-FM-T MOD	Complete	990,727	25%	247,682
588	Duxbury	1978	CS		730,100	15%	109,515
174	Easthampton	1968	INT-PS-FM-T	Complete	4,422,000	25%	1,105,500
79-1	Easthampton	1980	SLUDGE PROC-MOD		550,000	90%	495,000
155	East Longmeadow	1969	INT	Complete	202,890	30%	60,867
372	East Longmeadow	1977	PS-CS	Complete	757,857	15%	113,676
205	East Longmeadow	1971	PS-FM-INT	Complete	162,306	25%	40,576
558	Edgartown	1978	GS-PS-FM		479,500	15%	71,925
228	Edgartown	1972	PS-FM-INT-T	Complete	1,286,089	35%	450,131
490	Erving	1978	SEWER SEP		451,916	15%	67,787
262	Erving	1974	T	Complete	2,008,311	15%	301,247
301	Erving	1975	T	Complete	4,540,908	15%	681,136

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
186	Fairhaven	1968	T	Complete	5,491,748	25%	1,372,937
315	Fairhaven	1977	PS-FM-INT-LS	Complete	4,381,143	15%	657,171
184	Fall River	1969	T-MOD	Complete	1,915,781	25%	478,945
224	Fall River	1972	PS-FM-INT	Complete	212,020	25%	53,005
481	Fall River	1977	T		36,225,413	14%	5,168,675
515	Fall River	1977	PS REHAB-SEWER SEP		9,525,075	15%	1,428,761
325	Falmouth	1984	PS-INT-FM		20,240,383	13%	2,556,571
227	Fitchburg	1970	T		13,484,000	15%	2,022,600
234	Fitchburg	1970	T		11,989,000	35%	4,196,150
257	Fitchburg	1974	INT	Complete	1,344,222	15%	201,633
213	Framingham	1971	INT-PS-FM	Complete	3,071,324	25%	767,831
573	Franklin	1977	LS	Complete	4,352,366	15%	652,885
611	Franklin	1984	SEWER REHAB		83,851	17%	14,790
673	Gardner	1980	INT-GS	Complete	718,768	15%	107,815
329	Gardner	1982	INT		18,488,825	15%	2,769,113
223	Gardner	1971	INT-T-MOD	Complete	2,056,329	25%	514,082
317	Gill	1978	LS-INT-PS-FM	Complete	1,352,735	15%	202,910
78-1	Gloucester	1978	T		18,136,276	90%	16,322,648
600	Gloucester	1982	INT-GS-PS-FM		399,576	15%	59,936
599	Gloucester	1982	GS-PS-FM		1,018,723	15%	152,808
271	Grafton	1975	T-INT-PS-FM-CS	Complete	11,999,024	15%	1,799,854
236	Great Barrington	1972	T-PS-FM-INT	Complete	4,473,400	35%	1,565,690

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
487	Great Barrington	1982	SEWER SEP		2,548,593	15%	382,289
273	Greater Lawrence S.D.	1971	INT	Complete	6,723,081	15%	1,008,462
252	Greater Lawrence S.D.	1971	T-PS-FM-INT		45,216,000	15%	6,782,400
152	Greenfield	1969	T-PS-FM-INT	Complete	525,450	30%	157,635
238	Greenfield	1972	T	Complete	2,954,895	35%	1,007,871
359	Greenfield	1982	INT		5,696,076	15%	854,411
286	Groveland	1977	PS-FM-INT	Complete	2,717,919	15%	407,688
369	Hadley	1978	PS-FM-GS	Complete	2,460,664	15%	369,100
240	Hardwick	1973	T-PS-FM-INT-OUT	Complete	1,368,885	35%	479,109
318	Hardwick	1977	T-PS-FM-CS	Complete	680,887	15%	102,133
285	Hatfield	1984	PS-T		7,472,637	15%	1,113,828
340	Haverhill	1982	INT		3,746,993	15%	562,049
339	Haverhill	1977	INT	Complete	418,733	15%	62,810
274	Haverhill	1973	INT	Complete	8,195,518	15%	1,229,327
266	Haverhill	1972	T-INT-PS-FM	Complete	19,562,580	15%	2,934,387
158	Hingham	1969	PS-FM	Complete	97,154	27%	26,231
278	Hinsdale	1975	INT		1,131,000	15%	169,650
H-59	Holbrook	1982	INT-LS-PS-FM		493,408	15%	74,011
275	Holbrook	1975	INT		2,540,000	15%	381,000
590	Holbrook	1979	INT-PS-LS-FM		394,009	19%	75,000
368-1	Holyoke	1978	PS-FM		1,760,780	15%	264,117
173	Holyoke	1968	INT-PS-FM	Complete	313,039	25%	78,260

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
75-01	Holyoke	1975	T		24,265,397	90%	21,838,857
74-06	Holyoke	1975	INT-PS-FM	Complete	1,403,295	90%	1,262,966
80-1	Hoosac W.Q.D.	1980	SEWER REHAB	Complete	425,172	90%	382,655
83-1	Hoosac W.Q.D.	1983	SLUDGE PROC EQUIP	Complete	600,000	83%	500,000
237	Hoosac W.Q.D.	1973	INT	Complete	691,902	35%	242,166
74-4	Hoosac W.Q.D.	1978	T	Complete	7,244,318	90%	6,519,886
294	Hopedale	1982	T-INT-LS-PS-FM		8,566,551	15%	1,284,983
215	Hudson	1971	PS-FM-INT	Complete	777,928	25%	194,482
338	Hudson	1984	T		13,543,955	15%	1,962,685
579	Hull	1977	PS-FM-CS		2,883,763	15%	432,564
300	Hull	1973	T-OUT-INT-PS-FM		12,928,000	15%	1,939,200
319	Huntington	1976	T-INT	Complete	1,328,769	15%	199,315
160	Ipswich	1968	T-INT	Complete	64,697	30%	19,409
256	Ipswich	1972	T-MOD-PS	Complete	4,255,180	15%	638,277
324	Lancaster S.D.	1978	CS-INT-PS-FM		2,534,000	15%	380,100
355	Lee	1977	INT	Complete	108,509	15%	16,276
330	Lee	1977	LS-PS-FM	Complete	5,107,292	15%	766,094
148	Lee	1969	T	Complete	727,627	30%	218,288
111	Leicester	1969	T	Complete	234,508	30%	70,352
320	Lenox	1978	PS-FM	Complete	1,051,865	15%	157,780
625	Lenox	1982	SLUDGE PROC EQUIP	Complete	483,350	15%	72,503

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
188	Lenox	1969	T-INT	Complete	1,013,075	25%	253,269
336	Leominster	1978	T-INT		24,578,058	15%	3,871,868
214	Leominster	1971	T-MOD	Complete	126,943	25%	31,736
142	Lexington	1969	FM	Complete	268,763	27%	72,566
217	Lexington	1971	PS-ADD	Complete	592,665	25%	148,166
74-2	Lexington	1974	INT	Complete	40,595	90%	36,536
281	Longmeadow	1975	PS	Complete	1,060,793	15%	159,119
375	Longmeadow	1981	INT		2,637,616	15%	395,642
251	Lowell	1973	SITE PREP	Complete	1,221,721	35%	427,602
284	Lowell	1971	T-INT		49,489,000	15%	7,423,350
637	Lowell	1982	INT		22,099,426	15%	3,314,914
293	Lowell	1977	INT		24,815,015	15%	3,722,252
366	Ludlow	1977	INT-LS	Complete	3,480,521	15%	522,078
283	Lynn	1978	T		57,459,462	15%	8,012,823
404	Malden	1978	INT	Complete	1,292,059	15%	193,809
198	Manchester	1970	T	Complete	604,702	25%	151,176
398	Manchester	1977	LS	Complete	780,429	15%	117,064
345	Mansfield	1979	T-INT-OUT		30,674,767	15%	4,601,215
154	Mansfield	1968	T-ADD	Complete	558,365	25%	139,591
202	Marion	1970	T	Complete	1,042,000	25%	260,500
561	Marlborough	1978	LS-SEWER EXT		1,124,225	15%	168,634
384	Marlborough	1977	INT	Complete	720,608	15%	108,091

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
182	Marlborough	1969	T-INT	Complete	2,015,800	25%	503,950
221	Marlborough	1971	T	Complete	8,518,061	25%	2,129,515
470	Marshfield	1981	T-OUT-INT-PS-FM		20,666,915	15%	3,104,511
311	Mattapoisett	1977	PS	Complete	1,911,706	15%	286,756
724	Maynard	1982	T-MOD-S IMP		5,826,478	15%	873,972
247	Maynard	1971	T-MOD	Complete	2,009,040	35%	703,164
249	Medfield	1971	T-OUT-PS-INT	Complete	3,379,868	35%	1,182,954
410	Medfield	1977	INT-CS		4,332,411	15%	649,862
411	Medway	1977	CS	Complete	1,045,083	15%	156,762
523	Medway	1977	INT-CS	Complete	2,998,017	15%	449,703
503	Melrose	1977	INT-PS-REHAB		2,049,732	15%	307,460
453	Merrimac	1978	T-CS	Complete	6,896,389	15%	1,034,458
393	Methuen	1978	INT-LS-PS-FM		11,063,692	15%	1,617,704
459	MWRA - Fore River	1978	FORE RIVER SYPHON	Complete	4,035,006	15%	605,251
312	MWRA - Charles River	1976	INT		22,793,500	15%	3,419,025
529	MWRA - Rutland/Holden	1980	RELIEF SEWER		3,899,171	15%	584,876
196	MWRA - Malden RS	1970	INT	Complete	1,990,160	25%	497,540
226	MWRA - No. Charles	1972	INT	Complete	11,359,381	25%	2,839,845
670	MWRA -	1981	FACILITIES PLAN		7,124,432	15%	1,030,114
655	MWRA -	1984	RELIEF SEWER		7,179,610	15%	1,076,942
713	MWRA - Deer Island	1985	FACILITIES PLAN		4,417,128	65%	2,850,415
177	MWRA - Millbrook	1968	INT	Complete	763,411	25%	190,853

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
68-1	MWRA - Deer Island	1969	ADMIN & GARAGE BLDGS	Complete	577,829	60%	346,697
161	MWRA - Deer Island	1969	WINTHROP TERM FAC	Complete	2,588,700	27%	698,949
181	MWRA - No. Charles	1968	INT	Complete	1,322,116	25%	330,529
640	MWRA - Fox Point	1985	T		5,739,669	15%	833,437
192	MWRA - Squantum	1969	FM	Complete	2,435,659	25%	608,915
643	MWRA - Constitution Beach	1985	CS		2,311,554	15%	341,110
305	Middleborough	1975	T		5,720,000	15%	858,000
172	Millbury	1968	T-INT	Complete	2,183,215	25%	545,804
309	Milford	1980	T		19,766,385	15%	2,964,958
465	Millis	1984	INT-PS		4,019,217	15%	602,883
206	Monroe	1971	T-PS-OUT	Complete	127,475	25%	31,869
332	Monson	1977	PS-INT-FM	Complete	8,486,655	15%	1,272,998
276	Montague	1975	INT & FLOW METER STA	Complete	94,581	15%	14,187
751	Montague	1984	INT-CS		639,712	16%	101,518
321	Montague	1977	PS-FM-INT-T/MOD		8,510,300	15%	1,276,545
708	Montague	1984	CS		1,974,826	15%	303,354
310	Nahant	1978	INT		5,696,397	15%	854,460
473	Nantucket	1981	T-PS-FM		10,127,170	11%	1,160,077
199	New Bedford	1970	T-PS-OUT-SLUDGE INCIN	Complete	7,398,597	25%	1,849,649
474	New Bedford	1981	INT		4,453,443	15%	668,016
474-04	New Bedford	1983	PS-REHAB-FM		1,702,636	15%	255,395

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
N-74	New Bedford	1982	PS-REHAB-FM		3,728,112	15%	559,217
307	Newburyport	1977	T		17,031,890	15%	2,554,783
391	Newburyport	1977	PS-FM-INT-LS-SD		2,638,000	15%	395,700
296	Northampton	1977	T-INT-CS		27,237,400	15%	4,085,610
280	North Attleboro	1977	T-INT-CS-PS		17,558,600	15%	2,633,790
447	Northborough	1977	PS-FM-INT-LS		6,328,050	15%	949,207
225	Northbridge	1972	T-ADD-INT-PS-FM	Complete	1,653,310	25%	413,328
382	Northbridge	1978	LS-INT	Complete	1,296,444	15%	194,467
208	North Brookfield	1971	T-INT	Complete	399,208	25%	99,802
203	Northfield	1971	T-INT	Complete	536,290	25%	134,072
698	Orange	1982	SEWER REHAB		586,658	15%	87,999
270	Orange	1975	INT-SITE PREP	Complete	2,897,255	15%	434,588
379	Oxford-Rochdale S.D.	1977	CS-INT-STOR-BLDG	Complete	1,421,359	15%	213,204
246	Oxford-Rochdale S.D.	1975	T-INT-OUT	Complete	772,564	35%	270,397
279	Palmer	1976	T		17,931,160	15%	2,689,674
596	Peabody	1978	LS-CS-INT-PS- FM-ES		9,155,900	15%	1,373,385
397	Peabody	1977	CS-INT		3,915,357	15%	587,304
277	Peabody	1975	PS		3,654,460	15%	548,169
287	Pepperell	1976	PS-INT	Complete	4,226,721	15%	634,008
157	Pittsfield	1968	T-PS	Complete	115,850	30%	34,755
175	Pittsfield	1968	INT	Complete	640,269	25%	160,067
74-3	Pittsfield	1977	T-MOD	Complete	12,047,098	90%	10,842,388

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
428	Plainville	1978	CS	Complete	2,490,226	15%	373,534
162	Plymouth	1969	T-INT-PS-OUT	Complete	3,077,000	25%	769,250
406	Quincy	1979	PS-FM-INT		3,825,875	15%	573,881
416	Randolph	1977	INT-CS-PS-FM	Complete	6,130,799	15%	919,620
303	Raynham	1975	INT	Complete	1,000,194	15%	150,029
163	Reading	1968	INT	Complete	839,277	27%	226,605
401	Reading	1977	PS-FM-INT-CS	Complete	1,542,412	15%	231,362
521	Revere	1982	SYSTEM REHAB.		1,119,790	15%	167,969
471	Rockland	1981	T MOD-CS		13,392,977	15%	2,008,946
394	Rockport	1977	PS		5,859,216	15%	878,882
255	Rockport	1972	T-OUT-PS-FM-INT		3,567,712	15%	535,157
656	Rockport	1981	SLUDGE PROC FAC		2,877,226	15%	431,584
229	Royalston	1972	T-INT	Complete	243,551	35%	85,242
652	Salem	1981	INT	Complete	2,319,438	15%	347,916
400	Salem	1978	INT-LS-PS-FM	Complete	4,509,065	15%	676,360
399	Salem	1977	INT	Complete	3,295,658	15%	494,349
499	Saugus	1980	INT-FM-PS MOD		10,082,420	15%	1,512,363
69-1	Scituate	1969	FP	Complete	13,127	60%	7,876
469	Scituate	1982	PS-FM-INT- SLUDE FAC.		4,391,278	13%	571,901
231	Shelburne	1972	PS-FM-INT	Complete	164,051	35%	57,418
488	Shelburne	1982	S REHAB-S SEP		75,120	15%	11,268
446	Shrewsbury	1984	RS	73.	764,606	14%	104,458

WPC NO.	NAME OF APPLICANT	FISCAL YEARS	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
74-1	Shrewsbury	1974	GRIT FAC.	Complete	157,994	90%	142,194
164	Somerset	1969	T-OUT-PS-FM-INT	Complete	4,865,900	25%	1,216,475
425	Somerset	1977	CS-LS-PS-FM-ES	Complete	3,309,152	15%	496,373
179	Southbridge	1969	T-PS-INT	Complete	1,923,594	25%	480,899
674	Southbridge	1985	SEWERS		1,114,955		724,937
737	South Essex S.D.	1982	INC-ASH-DETOX		6,092,618	15%	890,004
456	South Essex S.D.	1979	INT		10,990,658	15%	1,648,599
241	South Essex S.D.	1971	T		26,500,000	25%	6,625,000
222(R)	South Essex S.D.	1970	INT-PS		11,021,000	25%	2,755,250
288	South Essex S.D.	1976	INT		7,000,000	15%	1,050,000
298	South Hadley	1976	T		10,901,124	15%	1,635,169
194	Spencer	1969	T-INT	Complete	1,286,402	25%	321,601
258	Springfield	1972	T		52,533,000	15%	7,882,950
431	Stockbridge	1984	T-PS-INT-LS		6,605,792	15%	984,122
681	Stoneham	1983	STORM DRAINS		1,556,743	35%	313,941
418	Stoughton	1977	CS	Complete	1,205,329	15%	180,799
189	Sturbridge	1969	T-PS-INT	Complete	1,138,649	25%	284,662
376	Sturbridge	1982	T MOD-S REHAB		1,233,941	15%	182,544
250	Sunderland	1973	T-INT-PS-FM	Complete	1,381,834	35%	483,642
290	Sutton	1977	PS-INT-LS	Complete	887,723	15%	133,158
210	Swampscott	1971	T-PS	Complete	3,276,047	25%	819,012
302	Taunton	1975	T MOD	Complete	15,818,423	15%	2,372,763

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
479	Taunton	1982	PS-FM		2,577,431	15%	386,615
168	Taunton	1968	PS-INT	Complete	1,558,004	25%	389,501
538	Templeton	1978	PS-FM-INT	Complete	3,678,426	15%	551,764
306	Templeton	1976	T		7,830,167	15%	1,174,525
455	Tewksbury	1978	PS-FM-INT-LS		16,439,866	15%	2,465,980
549	Tyngsborough	1980	PS-FM-INT-LS		2,314,500	15%	347,175
253	Upper Blackstone W.P.A.D.	1970	T	Complete	23,296,410	15%	3,494,462
212	Upper Blackstone W.P.A.D.	1971	FM	Complete	66,526	25%	16,632
204	Upton	1970	T-INT	Complete	1,069,590	25%	267,398
383	Upton	1976	INT-PS-FM-LS	Complete	1,482,203	15%	222,330
541	Upton	1977	LS	Complete	406,476	15%	60,971
289	Uxbridge	1976	T		10,773,000	15%	1,615,950
539	Wakefield	1978	FM-PS MOD	Complete	1,377,397	15%	206,610
190	Wakefield	1969	PS	Complete	485,621	25%	121,405
415	Walpole	1984	INT-FM-LS		6,651,050	15%	982,658
343-03	Waltham	1979	INT	Complete	6,121,480	15%	918,222
343	Waltham	1977	INT-PS-FM	Complete	4,493,871	15%	674,081
79-3	Ware	1980	T-INT		3,461,700	90%	3,115,530
568	Wareham	1978	LS-INT-PS		5,133,700	15%	770,055
201	Wareham	1970	T-PS-FM	Complete	3,275,661	25%	818,915
550	Wareham	1979	T MOD		3,903,216	11.3%	442,350
551	Warren	1982	T-S		3,101,373	15%	465,206

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
450	Wayland	1982	T		3,497,300	9%	319,183
636	Webster	1982	T-P-MOD		3,662,672	15%	549,401
570	Webster	1978	FM-ES		1,153,955	15%	173,093
377	Webster	1978	PS-FM-LS-CS		3,120,791	15%	468,119
242	Webster	1971	T&PS	Complete	4,290,295	15%	643,544
598	Wellesley	1982	INT-LS		4,353,499	15%	653,025
269	Wellesley	1975	PS-ADD	Complete	915,990	15%	137,398
774	Westborough	1984	INT		1,033,337	15%	155,001
183	Westborough	1969	T-INT	Complete	1,532,371	25%	383,093
448	Westborough	1984	T		28,799,369		3,828,202
346	Westfield	1978	SEWER SEP	Complete	321,242	15%	48,186
331	Westfield	1985	PS, FM, INT		4,049,301	18%	722,339
218	Westfield	1969	T-INT	Complete	4,288,006	25%	1,072,002
497	West Springfield	1978	SEWER SEP	Complete	3,317,304	15%	497,596
233	West Springfield	1972	INT-PS-FM	Complete	5,337,117	35%	1,867,990
209	West Springfield	1971	INT-PS-FM	Complete	760,665	25%	190,166
413	Westwood	1977	PS-FM-INT-LS		4,650,191	15%	697,529
419	Weymouth	1977	PS-FM-LS	Complete	2,665,902	15%	399,885
80-2	Weymouth	1981	LS (Project III)	Complete	443,900	75%	332,700
606	Weymouth	1977	PS-FM-LS		8,385,900	15%	1,257,885
540	Wilbraham	1978	INT-SEWER EXT	Complete	4,678,393	15%	701,759
216	Wilbraham	1977	T-PS-FM-OUT	Complete	3,150,132	25%	997,533
699	Wilbraham	1984	INT		1,075,178	16%	170,474

WPC NO.	NAME OF APPLICANT	FISCAL YEAR	PROJECT	STATUS	TOTAL ELIGIBLE COST	STATE GRANT PERCENTAGE	STATE GRANT AMOUNT
518	Williamsburg	1978	GS-METERING/CHLO- RINATION STATION	Complete	2,738,272	15%	410,741
354	Williamstown	1978	INT	Complete	35,905	15%	5,385
187	Williamstown	1971	PS-FM-INT	Complete	365,946	25%	91,486
608	Williamstown	1984	INT		1,078,600	13%	141,587
342	Wilmington	1977	PS-FM-INT-LS		6,927,500	15%	1,039,125
219	Wilmington	1971	INT	Complete	259,733	25%	64,933
254	Winchendon	1973	T-MOD	Complete	1,693,913	35%	592,869
687	Winthrop	1983	SYSTEM REHAB		5,426,840	28%	1,499,068
153	Woburn	1968	INT	Complete	159,286	30%	47,786
442	Worcester	1978	INT		6,580,200	15%	987,030
347	Worcester	1978	INT-OVERFLOW ABATE FAC		7,813,148	15%	1,171,972
348	Worcester	1978	SEWER SEP		5,517,096	15%	827,564
334	Worcester	1979	INT	Complete	1,190,092	15%	178,514
W-34	Worcester	1982	INT		4,756,900	15%	713,535
W-47	Worcester	1982	SEWER SEP		12,587,400	15%	1,888,110
347-05	Worcester	1983	CS		6,618,364	15%	992,755

PROJECT CODE:

T:	Wastewater Treatment Plant	LS:	Lateral Sewer
INT:	Interceptor Sewer	GS:	Gravity Sewer
PS:	Pumping Station	OUT:	Outfall Sewer
ES:	Ejector Station	EGU:	Emergency Generator Unit
FM:	Force Main	CS:	Collector Sewer

DIVISION OF WATER POLLUTION CONTROL
 MASSACHUSETTS CLEAN WATERS ACT
 G.L. CHAPTER 21 - SECTION 37 - REIMBURSEMENT
 1985 FISCAL YEAR

<u>MUNICIPALITY</u>	<u>PROJECT NO.</u>	<u>PAYMENT</u>
Ashland	137	2,102
Bedford	102	1,298
Billerica	98	10,822
Brockton	116,128,150 & R-1	42,877
Burlington	141	10,734
Dalton	44	6,000
Easthampton	1	3,000
Fall River	74	7,500
Ipswich	14,93	3,270
Leominster	89,114,147	12,173
Pittsfield	31,43,71,R-2,99 124,130,129,130	10,767
Rockland	106,106	8,029
Scituate	144	18,212
Shrewsbury	13,82,117,143	11,007
Springfield	129	2,376
Taunton	96	1,289
Ware		1,000
Webster	105	2,975
Weymouth	49,121	3,468
Worcester	138	3,880
M.D.C.		<u>668,550</u>
	TOTAL	\$828,354.00

Mandatory Certification of Wastewater Treatment Plant Operators

Massachusetts had conducted a voluntary certification program in conjunction with the New England Water Pollution Control Association for many years.

On August 26, 1970 then Governor Sargent signed into law an Act establishing a Board of Certification of Operators of Wastewater Treatment Facilities. This Act required the following:

1. That the nine (9) member Board of Certification of Operators of Wastewater Treatment Facilities be established to ensure the proper management, operation and maintenance of wastewater treatment facilities.
2. That a fee of ten (10) dollars be required for the original certificate of competency and an annual fee of five (5) dollars for renewal thereafter. A new fee structure was established during fiscal year 1981 by the Department of Administration and Finance through passage of Chapter 499 of 1980 (An Act increasing certain licensing fees) and Chapter 572 of 1980 (An Act authorizing the Commissioner of Administration and Finance to set fees and charges paid to the Commonwealth). This new fee structure has been established as twenty (20) dollars for the original certificate of competency (examination fee) and an annual fee of twelve (12) dollars for renewal thereafter. A new fee of fifteen (15) dollars was established for the issuance of emergency certification.
3. That no person, corporation, city, town or district shall operate a treatment facility used for treating, neutralizing or stabilizing wastewater from homes, public buildings, commercial and industrial establishments unless the person in charge of the treatment facility has a certificate of competency issued by the Board of Certification of Operators of Wastewater Treatment Facilities. The present board policy also requires that the assistant chief operator, shift operator and/or week-end operators, if utilized, also must have a certificate of competency. Violation of the mandatory certification requirement is punishable by a fine of not more than twenty five hundred (2,500) dollars per day of such violation.
4. That any individual, who files an application for a certificate of competency prior to July 1, 1972 and with such date being extended by the General Court during the legislative year of 1973 to July 1, 1974 and provided further that one was employed as an operator at a wastewater treatment facility in Massachusetts on July 1, 1971 would be eligible for certification under provisions of the Grandfather's Clause of the enabling legislation. All others seeking certification shall pass an examination prepared by

the Board of Certification of Wastewater Treatment Plant Operators or shall be granted certification by means of a reciprocal agreement amongst the various states prepared and approved by the above mentioned Board of Certification.

5. The Board through its Rules and Regulations has set the following policies, "The Chief Operator is in responsible charge during all working hours of the wastewater treatment facility." "In any Grade four (4) or lower wastewater treatment facility which has eight (8) hour day, seven (7) days per week operation, the chief operator must have a certification rating equal to the grade of the plant, and during the absence of the operator in charge, the plant must have a certified operator (assistant chief operator) with a certification rating not less than one grade below the rating of the facility and for those Grade four (4) or lower facilities which utilize shift and/or week-end operations, the shift and/or week-end operators must have a certification rating commensurate with the duties one is performing at any given time." "For Grade five (5) six (6) or seven (7) plants the operator in charge must have a certification rating equal to the grade of the facility. During his absence the operator in charge (assistant chief operator) also must have a certification rating equal to the grade of the facility. If shift and/or week-end operators are utilized, the shift and/or week-end operators must have a certification rating commensurate with the duties one is performing at any given time. These ratings are determined by the Board based upon information provided by the facility." The Board of Certification of Operators of Wastewater Treatment Facilities has established a set of rules and regulations in addition to application forms for the certification program. The Honorable Governors of the Commonwealth have appointed the members who serve on the Board of Certification of Wastewater Treatment Plant Operators. The Board holds regularly scheduled monthly meetings to conduct business properly before the body and to establish policy as necessary. The Board further administers two (2) examinations per calendar year. These examinations are held in January and July of each year. Despite the restrictions and budgetary constraints imposed by Proposition 2½, the Board of Certification of Wastewater Treatment Plant clearly states that the wastewater treatment facilities within the Commonwealth must continue to meet the requirements of mandatory certification and that these facilities must be operated and maintained in accordance with the laws of the Commonwealth.

Chapter 606 of the Acts of 1983 transferred the Board of Certification of Wastewater Treatment Plant Operators from the Division of Registration in the Executive Office of Consumer Affairs to the Division of Water Pollution Control of the Executive Office of Environmental Affairs within the Department of Environmental Quality Engineering. This very important legislation now allows the Board to more properly administer its legislatively mandated affairs, decisions and policies. The budgetary, administrative and financial duties of the Board can now be carried on by the personnel directly responsible for conducting the affairs of the Board. Considerable changes in collection of renewal fees, examination preparation and notification, the review process and in-house methods for the administration of the Board's day-to-day affairs are being realized. This change has now resulted in a more efficient operation of the Board and is now a cornerstone of the Board's activities during the time period for this report.

Presently the Board has certified under the aspects of the Grandfather's Clause, reciprocal agreements or examinations two thousand, six hundred eighty (2,680) operators as of June 30, 1985.

TECHNICAL SERVICES BRANCH

ANNUAL REPORT

Administration Section

During FY'85, personnel administration continued to be the longest ongoing task. Interviews, selection and fiscal juggling to accomodate salary changes have consumed significant amounts of time and effort. The updating of job specifications and duties, preparation of necessary Form 30s and Form 40s, as well as the many other forms needed for out-of-state travel and the like, were among the functions performed. Considerable effort has also gone into the preparation and follow-up on expense vouchers for Technical Services Branch personnel.

The most time-consuming element of this activity continued to be the conduct of performance appraisals for everyone assigned to the Technical Services Branch. This activity continued to be worthwhile, by better defining responsibilities and expectations of both supervisors and subordinates, which has resulted in a more efficient use of time and resources. The hiring of new staff members also continued to consume a large block of time. A Senior Sanitary Engineer and an Assistant Sanitary Engineer were hired in August, 1984; a Sanitary Biologist was hired in September, 1984; two Aquatic Biologists and an Assistant Sanitary Engineer were hired in February 1985 and a Senior Clerk Stenographer was hired in April, 1985. In addition, four staff members were promoted during FY'85. Twelve (12) seasonal (summer) employees were selected and assembled. Their contribution was significant once again as they proved to be willing and hard workers. The continued cooperation of DES and area colleges and universities contributed to the success of this venture. Large student intern employees provided valuable assistance to regular staff members.

In the area of hardware, no new vehicles were acquired during FY'85. The oldest vehicles were in need of frequent repairs which, at times, were accomplished by section personnel in order to save time and money. Excellent cooperation with the Motor Vehicle Management Bureau resulted in the receipt of two additional vehicles, on loan, during the month of June, 1985. This partially relieved the annual vehicle shortage experienced by the Technical Services Branch during survey season.

Watercraft remained in generally good condition, thanks, in part, to continued scheduled maintenance. All three boat trailers were serviced and are in good condition. Supplies and equipment were provided in support of surveys conducted by the Lake, Water Quality Management, Research and Demonstration, Compliance Monitoring and Biological Sections.

Once again, the Technical Services Branch had a significant number of reports printed by Central Reproduction. Twenty-four (24) new reports were submitted, of which twenty-two (22) were printed and returned. Twenty (20) existing reports were submitted for re-publication of which seventeen (17) were printed and returned. In addition, eleven (11) non-report projects were submitted, of which seven (7) have been printed and returned.

Through the acquisition of additional computer equipment and personnel, the telephone lines became overloaded which necessitated a request to increase the

number of lines by 100 percent. Two local and four Centrex lines were added during the first quarter of FY'85. The communications capability of the Technical Services Branch was greatly improved.

Major activities related to the new physical plant consumed a large block of time. Since the Technical Services Branch faces the prospect of being displaced by the Massachusetts Microelectronics Park, substantial effort has been required to provide support to the Division of Capital Planning and Operations and the firm of Sert, Jackson and Associates, Inc. to develop a feasibility study for relocation of the Technical Services Branch. The study has been completed and recommends a new facility be constructed on the Lyman School grounds. This facility will provide space for consolidation with the Central Regional Office, currently located in Worcester; a modern laboratory; day care facilities and a new garage and parking facility.

FY'85 was the second full year in which a Senior Accountant was assigned to the Technical Services Branch. The Accountant has had a profound effect on the operation as the budgeted funds have been effectively utilized to provide much needed supplies and maintenance. Additionally, this has continued to result in invoices being processed promptly and assuring vendors of payments in a timely fashion.

A significant amount of time was expended dealing with a variety of administrative items for the Clean Lakes Program. The Chapter 628 program contributed a large number of substate agreements, contracts and invoices to be reviewed. Some additional time was spent reviewing Section 314 (Federal Clean Lakes Program) and Chapter 722 documents. A table of Technical Services Branch expenditures for FY'85 follows.

Overall, the year went well and progress in several areas was noted. Making a solid contribution to the success of these activities was the continued advice and cooperation received from Administrative, Financial, Legal and Planning personnel of the Boston Office, which was very much appreciated. Another successful and cooperative year is anticipated during FY'86.

Technical Services Branch

Expenditures

Fiscal Year 1985

<u>Subsidiary</u>	<u>Fund Source</u>	<u>Amount</u>	<u>Total</u>
Services	State	\$ 16,036	\$105,334
	Federal	89,298	
Clothing	State	-0-	736
	Federal	736	

<u>Subsidiary</u>	<u>Fund Source</u>	<u>Amount</u>	<u>Total</u>
Laboratory Supplies	State	4,872	
	Federal	7,677	
			12,549
Building Operations	State	3,390	
	Federal	-0-	
			3,390
Travel	State	8,906	
	Federal	13,200	
			22,106
Advertising & Printing	State	2,738	
	Federal	629	
			3,367
Maintenance & Repairs	State	7,493	
	Federal	-0-	
			7,493
Office & Administration	State	43,817	
	Federal	1,082	
			44,899
Equipment	State	5,469	
	Federal	44,475	
			49,944
Rentals	State	10,607	
	Federal	-0-	
			<u>10,607</u>
Totals	State	\$103,328	
	Federal	\$157,097	
			\$260,425
<u>Other Sources</u>			
Bond Funds			
Research and Demonstration		(A)\$	630,182
Clean Lakes & Great Ponds			805,358
Aquatic Nuisance & Weed Control			43,888
Federal Clean Water Act (314)			<u>404,197</u>
Total Expenditures			<u>\$2,144,050</u>

(A) Includes \$145,734 for equipment in conjunction with the contract with L.E.S.

Biology Section

The Division's Biology Section has the responsibility for three programs: (1) Research and Demonstration, (2) Water Quality Standards and (3) Biomonitoring. The section is staffed with nine (9) full time and four (4) seasonal employees.

The Research and Demonstration Program provides funding for scientific and engineering studies on specific environmental problems. During FY'85 nine (9) new projects were initiated. Along with two project amendments this committed \$535,765 of bond fund monies. The projects were designed to investigate acid rain, various forms of toxic pollution, and train Division personnel. In addition there were 28 existing projects making a total of 37 active projects during the year. During the year nine projects were completed and produced final reports. One of these reports was a nine volume Gazetteer of Hydrologic Characteristics of Streams in Massachusetts.

New Water Quality Standards for surface waters were formally adopted in FY'85. U.S. EPA gave their approval of the standards after the necessary public meetings and hearings. Substantial changes were not made, but are expected in the next round when the Division plans to address toxic pollutants in detail.

The Biomonitoring Program is relatively new to the Division. Its purpose is to supply the necessary biological sampling and analysis to support and augment more traditional chemical sampling programs, and to provide interpretations and information to the regulatory program for permit evaluation of toxic substances. Five full time and four seasonal employees are used to collect data on plankton, periphyton, macrophyton, macroinvertebrates, and fish. Toxicity testing is also carried out to a limited extent. During FY'85 major biomonitoring surveys were conducted on the Blackstone, Nashua, Hoosic, Ten Mile, French and Parker rivers. Four industrial site assessments were conducted. Special fish flesh sampling for Dioxin and PCB contamination was initiated. Along with the assessment of alternative bacterial indicators of pollution. The systematic screening of municipal discharges with the Microtox Toxicity Analyzer was begun. Members of the staff attended and presented papers at the North American Benthological Society's Conference, the New England Association of Environmental Biologists annual meeting, the Northeast Section of the American Fisheries Society and the Northeast Fish and Wildlife Conference.

New Projects

	<u>Project</u>	<u>Consultant</u>	<u>Cost</u>
80-30	In Service Training	—	\$ 25,000
84-26	The Surface Hydrology and Wetland Roles in Acid Deposition on the Bickford Pond Watershed	M.I.T.	39,078
84-38	Technical Writing Course	Garber & Souda, Associates	5,410

	<u>Project</u>	<u>Consultant</u>	<u>Cost</u>
85-05	Dioxin II	Midwest Center for Mass Spectrometry	20,000
85-06	Quincy Bay Study	Camp, Dresser & McKee, Inc.	39,950
85-18	Analysis of Contaminants in Marine Finfish & Shellfish	U.Mass, Boston	37,727
85-21	Ten Mile River Analysis	Dr. William Jobin	15,000
85-30	Design of A Study on Statewide Drinking Water Quality	U.Mass	14,300
85-32	Mass. Streamflow Program	U.S. Geological Survey	150,100

Existing Projects

	<u>Project</u>	<u>Consultant</u>	<u>Cost</u>
80-28	Installation and Evaluation of A Waterless Toilet	Mass. Audubon Society	24,225
81-09-1	Gazetteer of Hydrologic Characteristics of Massachusetts Streams	U.S. Geological Survey	174,000
81-09-2	Falmouth Landfill Study	U.S. Geological Survey	50,000
81-09-3	French and Quinebaug River Basins Atlas Study	U.S. Geological Survey	180,000
81-09-4	Distribution of Polychlorinated Biphenyls in the Housatonic River and Adjacent Aquifer	U.S. Geological Survey	134,600
81-09-5	Solute Transport Modeling of A Sewage Treatment Plant Plume	U.S. Geological Survey	96,900
81-15	Demonstration of Reduction of Excessive Water Main Pressure as A Means of Decreasing Residential Water Use	Boston Water & Sewer Commission	32,417
82-22	Wastewater Treatment Plant Operator Training Program	Camp, Dresser & McKee, Inc.	153,000

	<u>Project</u>	<u>Consultant</u>	<u>Cost</u>
83-11-1	Quality of Precipitation Deposited by Air Masses Moving Over Massachusetts	U.S. Geological Survey	225,000
83-11-2	Effects of Atmospheric Deposition on the Water Quality of Two Tributaries to the Quabbin Reservoir in Central Massachusetts	U.S. Geological Survey	352,800
83-11-3	Techniques for Estimating Reaeration Coefficients and Travel Times in Massachusetts Streams	U.S. Geological Survey	260,000
83-11-4	Hydrology of a Flood-Plain Wetland and its Influence on Stream-Water Quality in Massachusetts	U.S. Geological Survey	252,000
83-25	Drinking Water Sodium Study	U.Mass School of Health Sciences	9,741
83-31-1	Biological Removal of Phosphorus	U.Mass Dept. of Civil Engineering	62,458
83-31-2	Attachment of Biofilms/ Biological Anaerobic Fluidized Bed	U.Mass Dept. of Civil Engineering	75,317
83-31-3	Chemical Conditioning of Municipal Wastewater Sludges Using Polyaluminum Chloride	U.Mass Dept. of Civil Engineering	44,088
83-31-5	Assessing Chemical Toxicants to Anaerobic Methanogenic Bacteria Using the Microtox Bioluminescent Toxicity Analyzer	U.Mass Dept. of Civil Engineering	51,436
83-31-6	Joint Action of Toxicant Mixtures on <u>Daphnia pulex</u>	U.Mass Dept. of Civil Engineering	53,273
83-31-7	Research Using the Algal Assay: Bottle Test (AA:BT)	U.Mass Dept. of Civil Engineering	80,828
83-31-8	Algal Assay Short Course	U.Mass Dept. of Civil Engineering	45,925

	<u>Project</u>	<u>Consultant</u>	<u>Total</u>
83-31-9	Mathematical Modelling of Heavy Metals in the Natural Environment: Aluminum Toxicity in Relation to Acid Rain	U.Mass Dept. of Civil Engineering	67,969
83-31-10	Identification and Evaluation of Groundwater Wasteload Allocation Methods	U.Mass Dept. of Civil Engineering	51,436
83-31-11	Control of Localized Groundwater Contamination with Polymer Injection	U.Mass Dept. of Civil Engineering	75,317
83-31-12	Pilot Scale Implementation of DTECTR Using Decentralized Microcomputers	U.Mass Dept. of Civil Engineering	42,251
83-31-13	Sediment Toxicity Testing Using the Microtox Analyzer	U.Mass Dept. of Civil Engineering	31,394
84-14	Monitoring Organic Compounds and Metals in Massachusetts	Lawrence Experiment Station	185,000
84-28	The Metropolitan District Commission Infiltration/Inflow Study	Camp, Dresser & McKee, Inc.	39,420
84-31	Metropolitan District Commission Sludge Management Alternatives Comparison Program	Urban Systems & Engineering Inc.	21,217

Final Reports on Completed Projects

Anonymous. 1984. Infiltration Inflow Study of the MDC South Metropolitan Sewer District for the Department of Environmental Quality Engineering. Camp, Dresser and McKee, Inc. Boston. ii + 18 pp + Appendices.

Anonymous. 1984. Demonstration of Pressure Reduction As a Means of Water Conservation. Research and Demonstration Project 81-15. Boston Water and Sewer Commission, Boston. viii + 32 pp.

Anonymous. 1985. Drogue Tracking Studies in Quincy Bay. Research and Demonstration Project 85-06. Camp Dresser and McKee, Inc., Boston. vi + 20 pp + Appendices.

Briggs, J.C. and W.D. Silvey. 1984. Source, Movement, and Effects of Nitrogen and Phosphorus in Three Ponds in the Headwaters of Hop Brook, Marlborough, Massachusetts. Water-Resources Investigations Report 84-4017. U.S. Geological Survey, Boston. iv + 55 pp.

Gay, F.B. and M.H. Frimpter. 1984. Distribution of Polychlorinated Biphenyls in the Housatonic River and Adjacent Aquifer, Massachusetts. Open-file Report 84-588. U.S. Geological Survey, Boston. iv + 34 pp.

Havis, R.N., D.D. Adrian, R.R. Noss, and D.W. Ostendorf. 1983. A Mathematical Model of Phosphorus in Completely Mixed Lakes with Special Application to Lake Warner, Massachusetts. Environmental Engineering Report 78-83-9. University of Massachusetts, Department of Civil Engineering, Amherst. xi + 132 pp.

Marchaj, D. and M.S. Switzenbaum. 1983. Dewatering of Sewage Sludge on Granular Coal. Environmental Engineering Report 75-83-6. University of Massachusetts, Department of Civil Engineering, Amherst. x + 152 pp.

Sheehan, K.D., K.E. Sellers, and N.M. Ram. 1984. Establishment of a Microtox Laboratory and Presentations of Several Case Studies Using Microtox Data. Environmental Engineering Report 77-83-8. University of Massachusetts, Department of Civil Engineering, Amherst. viii + 76 pp.

Wandle, S.W., Jr. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Coastal River Basins of the North Shore and Massachusetts Bay. Water-Resources Investigations Report 84-4281. U.S. Geological Survey, Boston. iv + 60 pp.

Wandle, S.W., Jr. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Connecticut River Basin. Water-Resources Investigations Report 84-4282. U.S. Geological Survey, Boston. iv + 110 pp.

Wandle, S.W., Jr. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Hudson River Basin. Water-Resources Investigations Report 83-4250. U.S. Geological Survey, Boston. iv + 24 pp.

Wandle, S.W., Jr. and R.A. Fontaine. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Merrimack River Basins. Water-Resources Investigations Report 84-4284. U.S. Geological Survey, Boston. iv + 54 pp.

Wandle, S.W., Jr. and G.R. Keezer. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Taunton and Ten Mile River Basins and Coastal River Basins of Mount Hope Bay, Narragansett Bay, and Rhode Island Sound. Water-Resources Investigations Report 84-4283. U.S. Geological Survey, Boston. iv + 38 pp.

Wandle, S.W., Jr. and J.A. LeBlanc. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Thames River Basin. Water-Resources Investigations Report 84-4287. U.S. Geological Survey, Boston. iv + 27 pp.

Wandle, S.W., Jr. and R.G. Lippert. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Housatonic River Basin. Water-Resources Investigations Report 84-4285. U.S. Geological Survey, Boston. iv + 30 pp.

Wandle, S.W., Jr. and M.A. Morgan. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Coastal River Basins of the South Shore and Buzzards Bay. Water-Resources Investigations Report 84-4288. U.S. Geological Survey, Boston. iv + 30 pp.

Wandle, S.W., Jr. and A.F. Phipps. 1984. Gazetteer of Hydrologic Characteristics of Streams in Massachusetts - Blackstone River Basin. Water-Resources Investigations Report 84-4286. U.S. Geological Survey, Boston. iv + 26 pp.

Water Quality Monitoring Surveys

Intensive surveys were conducted during the summer on the Ten Mile River Basin to obtain data which were used in the determination of NPDES permit limits for approximately 20 industrial dischargers; Boston Harbor to obtain updated water quality data; Lower Connecticut River to obtain background water quality data which were used in the assessment of combined sewer overflows; and the Charles River Basin to update water quality data and to evaluate the effects of a desalinization project.

In order to evaluate the effects of industrial dischargers upon their receiving waters, one day surveys were conducted at Texas Instruments in Attleboro, Microfab in Amesbury, and Silicon Transistor and Nye's Jap Enamelac in Chelmsford.

In the fall, samples for coliform bacteria were collected on two locations on the Mumford River in response from DEQE-CRO. Effluent monitoring of Guilford Industries, East Douglas, was conducted as part of an evaluation of the required permit. Sediment samples were collected from three impoundments in the Ten Mile River. A monitoring program of the upper Assabet River to evaluate water quality problems and to respond to complaints raised by citizens of Northborough commenced in December. This program continued on a monthly basis throughout 1985.

Starting in April, mini surveys were conducted on nine river basins - Millers, Ipswich, French and Quinebaug, Hoosic, Ware and Chicopee, Nashua, Assabet, Buzzards Bay, and Westfield. An intensive survey was conducted in the Blackstone River in June.

Reports and Evaluation of Water Quality

The following water quality reports were completed:

1. A Comparison of Acute Toxicity Evaluations with Macroinvertebrate Community Analysis
2. 1983 Connecticut River Water Quality Data
3. 1984 305(b) Summary of Water Quality

4. 1983 Deerfield River Water Quality Data MFR
5. 1984 Connecticut River Water Quality Data MFR
6. 1983 North River Water Quality Data
7. 1983 Mount Tom Water Quality Data
8. 1984 Boston Harbor Water Quality Data
9. 1984 Ten Mile River Water Quality Data

Water Quality Analyses completed included Silicon Transistor, Chelmsford field investigation; several reports on the Ten Mile River; the ASIWPCA non-point source report; and a Buzzards Bay estuary study work plan. Water quality analysis began on the North River and the French River.

Water Quality Management Plans were completed on the Blackstone and Merrimack rivers and the Boston Harbor Water Quality Management Plan was submitted for final typing.

A special project was undertaken to determine the fate of heavy metals in wastewater treatment plants and the report "Study of Metal Removal in Massachusetts POTW's" was completed and was undergoing final review.

Technical Evaluations of Water Quality Issues Related to Construction Grants Activities

A permit summary format was devised and draft permits were summarized. During the period 45 permits were reviewed. A cataloging system of all facility plans were begun. Ten reports were summarized and a bibliography file was started. Six facility plans were reviewed.

Other technical assessments were undertaken in the development of a revised wasteload allocation for determination of allowable effluent limits for Guilford Industries in East Douglas; in developing a wasteload allocation for the town of Brookfield for a possible discharge to the Quaboag River; and in the 301(h) review process for the Deer and Nut Island WWTP's.

Lower Connecticut combined Sewer Overflow Project

Considerable time was devoted to this project. Phase I was completed with review of the report by Metcalf and Eddy. Phase II began with developing the Request for Proposal and the selection of the consultant. Several meetings were held with the Phase II consultant and the advisory committee.

Ten Mile River Basin Study

A toxicity assessment program was undertaken in July through September. The data from the water quality surveys were entered into the data management system and were checked and verified. A program was developed to print the data via the work processor. Preliminary analysis reports were written by all involved parties. Three Ad Hoc Committee meetings were conducted and two public informational meetings were held on March 7, 1985 in Attleboro. A consultant was

hired and considerable time was spent in meetings with the consultant. Recommended effluent limits were sent to EPA on June 26.

Conferences and Meetings

Significant conferences and training included:

1. A three-day conference, "Water Quality Based Toxic Control" presented by EPA attended by six in Galilee, Rhode Island;
2. The New England Association of Environmental Biologist conference in Vermont attended by two who gave presentations at the meetings;
3. The Purdue University Industrial Waste conference where a presentation was delivered of the paper "A Comparison of Acute Toxicity Evaluations with Macroinvertebrate Community Analysis"; and
4. A three-day course, "Mathematical Modeling of Water Quality" attended by four at Manhattan College.

Compliance Monitoring

The objective of a wastewater discharge survey is to measure the load of contaminants placed on the receiving waters and to monitor the discharge to assure compliance with the terms of discharge permits. For this purpose, rates of flow and concentration of the contaminants are measured. Since strength or concentration of individual waste materials and the physical characteristics of the waste may vary from time-to-time, sampling techniques depend on the type of discharge. For example, if a plant operates eight hours a day, the survey would extend only over the eight-hour period; if the plant operates twenty-four hours a day, the survey would be conducted over twenty-four hours. When rate of waste flow is variable, volumes of the several samples are mixed together in proportion to flow. This is done to provide a composite sample representative of the waste discharge. When rate of waste flow is relatively constant, equal volumes of the samples are mixed together to provide a composite sample.

Recently, possible toxic constituents of municipal and industrial discharges have become a serious concern. In 1985, the Compliance Monitoring Section undertook a major new project to begin monitoring most major discharges for suspected toxic elements. This program has gone well to date and a considerable amount of data has been gathered.

The Compliance Monitoring Section works closely with the new Technical Assistance Section. The Technical Assistance Section conducts in-depth surveys at existing treatment facilities which are experiencing operational difficulties and makes recommendations for improving operations at these plants. All sampling required as part of the major surveys is carried out by the Compliance Monitoring Section.

All samples are analyzed according to accepted techniques and the concentrations and flow rates are reported in publications entitled Part B, Wastewater Discharge Data.

Compliance Monitoring surveys were conducted in most river basins in Massachusetts during the 1985 fiscal year. A total of 193 major discharges and 86 minor discharges were sampled. Also, samples were taken from 173 major discharges and analyzed for possible toxic contaminants.

Currently, twelve Isco samplers are functional for the Compliance Monitoring Section. The 1986 program is projected to sample 175 major permittees, 100 minor permittees, and test for possible toxic contaminants at 175 permittees. In addition, 6 joint surveys with the Technical Assistance Section are planned. Some of these will be large surveys involving several weeks of sampling and numerous samples from the units operating within the wastewater treatment plants that are evaluated.

The Compliance Monitoring Program currently has four full-time employees. The Isco samplers have been repaired and additional parts are on hand. We currently can keep up to 12 Isco samplers operating. At this time, we have adequate resources to carry out the program outlined above for the Compliance Monitoring Section for the 1986 fiscal year.

Lakes Section

The Massachusetts Clean Lakes and Great Ponds Program, as created under Chapter 628 of the Acts of 1981, is now entering its fourth year of funding. The program has proven to be popular with cities and towns during FY'83, FY'84 and FY'85, and will probably remain so in FY'86. In fact, 60 Requests for Assistance were received for FY'86. Thus far, the Division has been able to make grant offers to all eligible applicants. As many of the projects progress from Phase I to Phase II, however, each year's funding will likely become limited due to the increased cost of Phase II projects.

Six projects were completed under the Eutrophication and Nuisance Aquatic Vegetation Control Program during FY'85: Turnpike and Mirimichi Lakes, Plainville; Dorothy Pond, Millbury; Cheshire Reservoir, Cheshire; Ell Pond, Melrose and Lake Noquochoke, Dartmouth.

The Lakes Section is also currently administering four major restoration projects under the federal 314 Clean Lakes Program: Lake Cochituate, Natick/Framingham/Wayland; Porter Lake, Springfield; Dunn Pond, Gardner; and Lake Lashaway, East and North Brookfield.

The staff level for the Clean Lakes Program increased during FY'85 from six to eight full-time employees. Support activities were also given in legal and accounting activities.

Following is a list of FY'83, FY'84 and FY'85 projects receiving partial funding under the Clean Lakes Program.

MASSACHUSETTS CLEAN LAKES PROGRAM

GRANT ELIGIBILITY LIST

FY 1983

<u>MUNICIPALITY</u>	<u>LAKE</u>	<u>STATE GRANT(S)</u>	<u>LOCAL SHARE(S)</u>
East Brookfield	Lake Lashaway	\$100,254	\$ 64,540
Gardner	Dunn Pond	312,500	312,500
Brookfield	Quaboag and Quacumquasit Ponds	49,000	21,000
North Reading	Martins Pond	33,000	17,000
Westfield	Pequot Pond	42,000	18,000
Wakefield	Lake Quannapowitt	52,000	22,500
Hopkinton	North Pond	36,750	25,750
Amherst	Puffers Pond	42,000	18,000
Sturbridge	Walker Pond	42,000	18,000
Wayland	Dudley Pond	72,750	72,750
Holliston	Lake Winthrop	15,750	6,750
Hamilton	Chebaco Lake	42,000	18,000
Monterey and New Marlborough	Lake Buel	47,000	47,000
Southwick	Congamond Lakes	47,000	47,000
Waltham	Hardy Pond	52,500	22,500
Yarmouth	Long Pond	52,500	22,500
Westborough	Chauncy Pond	31,500	13,500
Northborough	Bartlett Pond	52,500	22,500
Melrose	Ell Pond	35,000	15,000
Westford	Forge Pond	42,000	18,000
Belchertown	Metacomet and Arcadia Ponds	59,500	25,500
Holliston	Lake Winthrop	15,000	15,000
Sturbridge	Big Alum Pond	10,500	4,500
Springfield	Porter Lake	201,420	535,700
Milford	Cedar Swamp Pond	28,000	12,000
Springfield	Lake Massasoit	52,500	22,500
Grafton	Lake Ripple	42,000	18,000
Lynn	Sluice and Flax Ponds	91,000	39,000
Wellesley	Morses Pond	21,577	21,577
Natick	Jennings Pond	35,000	15,000
Northampton	Willow Pond	65,000	65,000
Lynn	Floating Bridge Pond	35,000	15,000

FY 1984

<u>MUNICIPALITY</u>	<u>LAKE</u>	<u>STATE GRANT(S)</u>	<u>LOCAL SHARE(S)</u>
Natick	Lake Cochituate	\$ 49,236	\$ 49,236
Webster	Webster Lake	120,000	40,000
Worcester	Lake Quinsigamond	15,400	6,600
Springfield	Springfield Lakes	140,000	60,000
Dracut	Lake Mascuppig	24,500	10,500
Eastham	Great Pond	52,500	22,500
Athol	Lake Ellis	42,000	18,000
Sharon	Lake Massapoag	23,100	9,900
Sterling	East Lake Waushacum	10,950	3,650
Halifax	East Monponsett	42,000	18,000
Falmouth	Ashumet Pond	52,500	22,500
Woburn	Horn Pond	52,500	22,500
Weymouth	Whitmans Pond	121,275	40,425
Brookfield	Lake Lashaway	37,500	12,500
Shrewsbury	Flint Pond	80,400	26,800
Dracut	Lake Mascuppig .	16,500	5,500
Westminster	Wyman Pond	88,500	29,500
Hudson	Lake Boone	28,000	12,000
Sturbridge	Cedar Pond	619	206
Georgetown	Rock and Pentucket Ponds	77,000	33,000
Barnstable	Wequaquet and Long Ponds	105,000	45,000
Harvard	Bare Hill Pond	35,000	15,000
Arlington	Spy Pond	303,337	101,113
Franklin	Populatic Pond	42,000	18,000
Sturbridge	Cedar Pond	16,875	5,625
Holland	Hamilton Reservoir	30,000	10,000
Barnstable	Shallow Pond	49,000	21,000
Peabody	Browns Pond	52,500	22,500
Harvard	Bare Hill Pond	12,170	4,055
Plainville	Turnpike Lake	42,000	18,000
Charlton	Prindle Pond	1,875	625
Barnstable	Red Lily Pond	35,000	15,000
Peabody	Browns Pond	1,500	500

<u>MUNICIPALITY</u>	<u>LAKE</u>	<u>STATE GRANT(S)</u>	<u>LOCAL SHARE(S)</u>
Arlington	Spy Pond	7,000	3,000
Granby	Forge Pond	42,000	18,000
Arlington	Hills Pond	31,500	13,500
Brookline	Halls Pond	42,000	18,000
Barnstable	Red Lily Pond	33,750	11,250
Worcester	Salisbury Pond	42,000	18,000
Cambridge	Blacks Nook	28,000	12,000
Oak Bluffs	Lagoon Pond	31,500	13,500

FY 1985

<u>MUNICIPALITY</u>	<u>LAKE</u>	<u>STATE GRANT(S)</u>	<u>LOCAL SHARE(S)</u>
Pittsfield	Pontoosuc Lake	\$405,375	\$135,125
Pittsfield	Onota Lake	63,000	27,000
Worcester	Lake Quinsigamond	56,250	18,750
Wayland	Dudley Pond	540,000	180,000
Richmond	Richmond Pond	35,000	15,000
Townsend	Harbor Pond	56,000	24,000
Hardwick	Hardwick Pond	11,250	3,750
Worcester	Lake Quinsigamond	21,000	9,000
Winchester	Upper Mystic Lake	30,750	10,250
Marlborough	Fort Meadow Reservoir	59,500	25,500
Dracut	Long Pond	49,000	21,000
West Newbury	Mill Pond	31,500	13,500
Framingham	Waushakum Pond	52,500	22,500
Holliston	Lake Winthrop	97,500	32,500
Westminster	Wyman Pond	19,500	6,500
Wilmington	Silver Lake	42,000	18,000
New Bedford	Buttonwood Pond	49,000	21,000
Millbury	Dorothy Pond	202,500	67,500
Hopkinton	North Pond	30,000	10,000
Lunenburg	Shirley Reservoir	63,000	27,000
Holbrook	Lake Holbrook	38,500	16,500
Newton	Bullough's Pond	40,600	17,400

Electronic Data Processing Section

Fiscal year 1985 represents the first year of the Technical Services Branch's EDP Section's existence. Staffed with two regular employees and assisted throughout the year by one or two seasonal employees, the section was able to accomplish most of its goals as set forth in the FY'85 work plan.

The primary goal of the section was to put the Technical Services Branch's Ponds and Lakes Information System (PALIS) on a solid footing. This included the training of a database administrator, the development of working procedures with regards to the lake data, and the inclusion of all pertinent past lake's data into PALIS. All of the aforementioned was accomplished; however, there still remains some work to be done on the establishment of solid working procedures. At this point, all data through 1984 has been included in PALIS, and all data collected through mid-1985 has been prepared for imminent entry into PALIS.

The goal of developing a river's database has been only partially met and is still in process. This will become the section's primary goal during FY'86.

The EDP staff has represented the Technical Services Branch at the DEQE Automated Data Processing meeting throughout the year. The staff has thus become familiar with the process necessary to acquire data processing equipment and has, in fact, processed two requisitions for stand-alone microcomputer systems for the Technical Services Branch. The staff has also been involved in the process of renewing both the MSCCN and UMASS timesharing computer contracts, and has instituted tracking procedures to assure that a contract is not overrun or that timely steps are taken to increase the amount of the contract.

While plans for a compliance monitoring database were abandoned, the section did develop and complete two other databases, one for algae data and one for macroinvertebrate data. The algae database has since been incorporated into PALIS. It has been used to produce a draft copy of a statewide compilation of lake algae, and it is being used to develop a new algae reporting form. The macroinvertebrate database is in the process of having a significant amount of data input. Retrieval procedures and report outputs will be developed for its 1984 Ten Mile and 1985 Blackstone data soon.

One very revealing aspect of maintaining an EDP Section has been the amount of time necessary to devote to general user needs and administrative detail. The FY'86 work plan reflects this revelation.

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REGIONAL OFFICE OVERVIEW FY '85

The year 1985, witnessed a maturation of program coordination of water pollution control activities in the regions. Results of planning and quarterly report tracking processes indicate that program efforts of four (4) to five (5) staff in each region were subdivided (% time) into the following concerns:

- A. Complaint referral and investigation (15%)
- B. NPDES permit compliance review (13%)
- C. Title V subsurface (20%)
- D. Treatment plant operation and maintenance/tech. assistance (18%)
- E. Enforcement (4%)
- F. Administration and staff training (30%)

Within categories B & C, increased work loads in septage and sludge management activities occurred. This included considerable activity in working with municipalities and regional planning commissions on assessing current septage disposal facilities, and developing septage disposal management plans to improve present practices. Also, increased regional consultation on sludge landfill/land applications by NPDES permittees were required throughout the regions. The central and western offices utilized an additional manyear more each than was planned for sludge related activities.

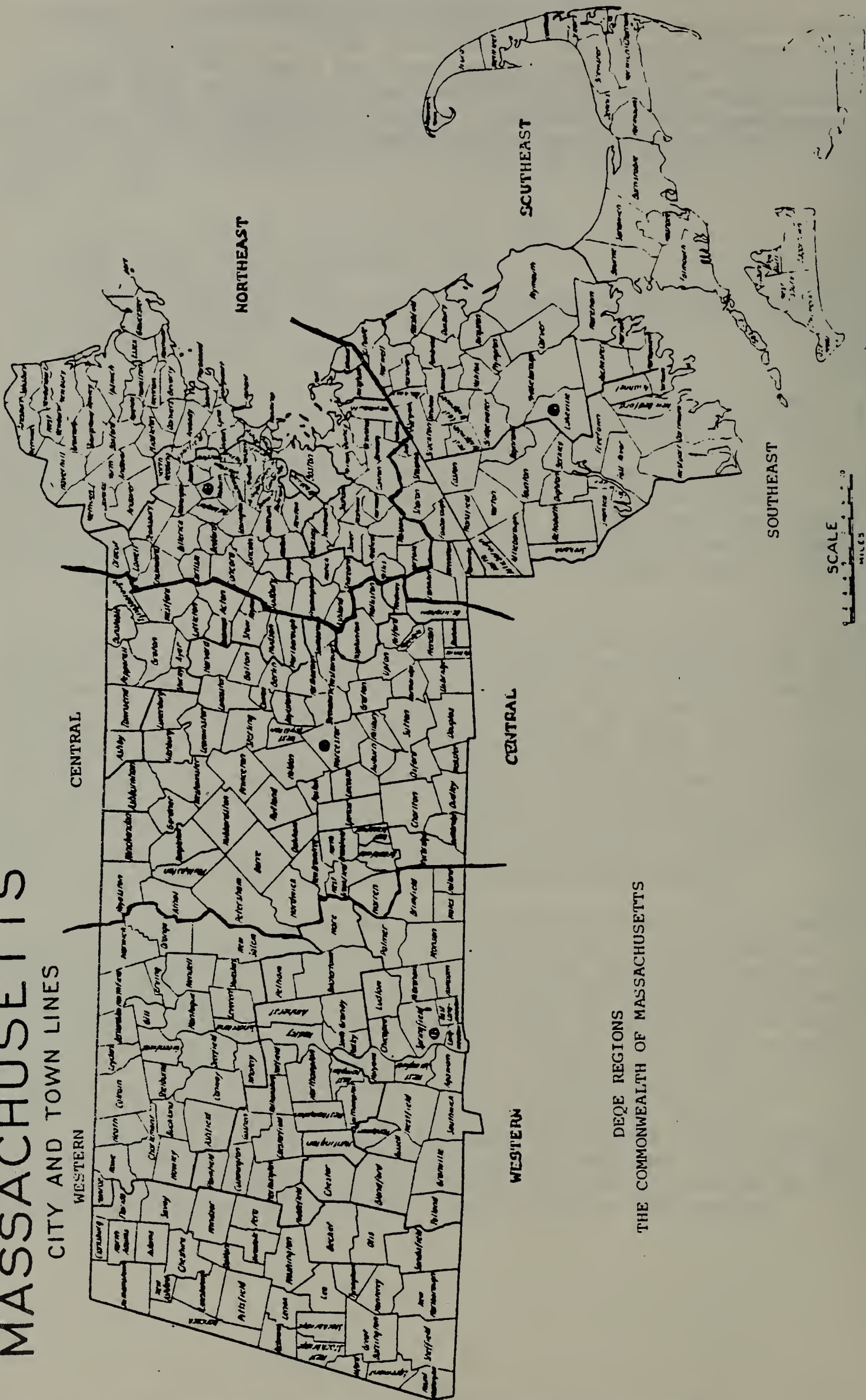
Additionally, much more time was spent than planned on Title V and related groundwater protection work, to the extent of an average of one to two manyears of additional required effort in each region. The groundwater activities of each regional office include the review and approval of subsurface disposal practices, including waivers requested, under Title 5 of the State Environmental Code and of subsurface systems greater than 15,000 gallons per day or discharging treated industrial process waters. Over 350 Title V permit reviews, and 160 Title 5 issuances, were processed through the regional offices in FY '85. This workload is expected to increase up to 25% more in each office in FY '86. No additional State or Federal resources have been provided to meet this growing workload demand.

Along with the increased groundwater/septage/sludge activities already described, Massachusetts envisions full takeover of the federal NPDES permit program responsibilities in 1986. This will mean additional responsibilities for managing procedural and program requirements of the program. For the regions, this will mean increased workloads in permittee compliance inspection and enforcement activities. As a delegated state, DEQE regions will conduct a significantly increased number of compliance inspections of both surface and subsurface permittees, facilitate appropriate referrals for technical assistance and initiate follow-up enforcement action as needed. In order for the Division's compliance fee program to meet expectations, additional compliance inspections must be conducted. Finally, the total number of permittees has increased steadily as the groundwater permitting program becomes more effective. The increase in the combined

groundwater-septage-sludge/NPDES program areas during FY '85 have necessitated the need of at least two (2) additional technical support staff in each of the four regions. This assumes continued on-going efforts of up to four (4) man-years in each region in complaint investigation; waste treatment plant operation and maintenance, technical assistance, and compliance; NPDES permit review; and enforcement activities.

MASSACHUSETTS

CITY AND TOWN LINES



DEQE REGIONS
THE COMMONWEALTH OF MASSACHUSETTS

WESTERN REGIONAL OFFICE

FISCAL YEAR 1985

The Western Regional Office (WRO) is located with other DEQE Divisions in the old Federal Post Office building at 436 Dwight Street, Springfield. This office serves the areas of Berkshire, Franklin, Hampshire and Hampden Counties.

The current staffing level consists of an Associate, a Principal, a Senior, and a Junior Sanitary Engineer. Administrative and clerical activities are accomplished by a Senior Clerk Stenographer.

Major program areas, and level of accomplishment are listed below:

Complaints requiring follow-up action	117
O & M inspection of WWTP's	281
Title 5 Plan review	90
NPDES review (new or reissuances)	52

CENTRAL REGIONAL OFFICE

JULY 1, 1984 - JUNE 31, 1985

The Central Regional Office is located at 75 Grove Street, Worcester, MA 01605 and serves a total of 80 municipalities in Worcester and portions of Norfolk and Middlesex Counties.

A total of 39 municipal Wastewater Treatment Facilities and approximately 235 industries discharge to surface waters in the region. There are also approximately 55 industries that have permits to discharge to groundwater. The total number of discharges in the Region that Section personnel must monitor continues to grow due to the areas development pressures.

The total of 5 staff members comprise the Section. Due to staff turnover, the Section did not have a full compliment of 5 persons until April, 1985. In spite of staffing difficulties, necessary training, and sludge related responsibilities, the Section was able to perform a majority of the program plan goals.

The following tables show the accomplishments of the Section for State Fiscal Year 1985.

ADMINISTRATION

PROGRAM PLAN PROGRESS	4
SUPPORT ACTIVITIES - GENERAL LETTERS, MEMOS, MEETINGS	620

COMPLAINTS

TELEPHONE COMPLAINTS/INQUIRIES	546
COMPLAINT FIELD INVESTIGATION/FOLLOW-UP	110

PLAN/PERMIT REVIEW

ENGINEERING REPORTS AND PLANS	61
INDUSTRIAL WASTE DISCHARGE PERMITS	15
MUNICIPAL WASTE DISCHARGE PERMITS	24
SUBSURFACE DISCHARGE PERMITS	12

TITLE 5

REVIEW TITLE 5 PLANS, INSPECTIONS	230
APPROVE TITLE 5 PLANS AND VARIANCES, INSPECTIONS	114

OPERATION AND MAINTENANCE

REVIEW SELF-MONITORING REPORTS	1600
INSPECT MAJOR PROBLEM PERMITTEES	53
INSPECT MINOR PROBLEM PERMITTEES	66
INSPECT NON-PROBLEM PERMITTEES	34
FOLLOW-UP MEETINGS	42

ENFORCEMENT

NOTICES OF VIOLATION	39
ADMINISTRATIVE ORDERS	4

TRAINING

TRAINING COURSE, SEMINAR AND CONFERENCE ATTENDANCE	60
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Southeast Regional Office

The Water Pollution Control Section relocated from the south wing of the main Lakeville Hospital Complex to the former Hospital Administrators residence identified as the "White House" effective on March 15, 1985.

The engineering staff presently consists of an Associate, Principal, two (2) Senior and vacant Assistant Sanitary Engineering positions.

Extensive growth is occurring in Southeastern Massachusetts especially in areas of condominium development, proposed convention centers with associated hotel and dining facilities and school construction with projected waste water flows in excess of 15,000 gallons per day. As a result of this increased activity there has been a significant increase in the numbers of plans for individual wastewater treatment plants being submitted for review and approval in addition to in excess of 500 Title 5 matters that were processed during this reporting period.

Worthy of note are two other areas that have required a substantial manpower commitment and were in the areas of pollution complaint investigation more than triple the number received over last year and increased attendance at meetings that were necessary to address the complex issues associated with citing wastewater treatment facilities.

Several cases were referred to the Attorney General's Office for enforcement and in some instances resulted in negotiated settlements involving substantial civil penalties. In addition, two (2) criminal cases which are still under investigation were referred to the Criminal Division of the Attorney General's Office for alleged falsification of treatment plant operating records.

The following tasks were accomplished during fiscal 1985:

Pollution Complaints Investigated	167
Wastewater Treatment Plant O & M Inspections	60
Review Self Monitoring Reports	1067
Treatment Plant Staffing Reviews	6
Attendance at Meetings & Hearings	101
Marine Oil Terminal Inspections	11
Prepare Cases for Enforcement	26
Title 5 Reviews and Approvals	510
Engineering Report Reviews	25
Discharge Permits Reviewed (Surface)	30
Discharge Permits Reviewed (Groundwater)	30

NE/MET REGIONAL OFFICE

FY-85

The Northeast/Met Regional office is located at 5 Commonwealth Avenue in Woburn. This office is responsible for 96 municipalities including the following river basins: Boston Harbor, Concord, Charles, Ipswich, Merrimack, Mystic, Neponset, North Coastal, Parker, Shawsheen, Weymouth Fore and Back, and the Weir.

Present staffing consists of five (5) engineers and one secretary.

Due to the large number of Groundwater Wastewater Treatment facilities being constructed in this Region, the present staff cannot provide proper plan and specification review and approval. Due to this fact the Boston Office has provided this function until another engineering position can be assigned to this Region.

On several occasions the technical assistance section has provided invaluable help which the Region could not, in evaluating and correcting operation and maintenance problems. This section can be of great assistance to the Region in that it provides technical expertise for the required period of time, where the Region cannot.

Again this year training seminars have been provided to Regional personnel and has had a great impact on the program especially in the O & M area. It is hoped this will continue since it can only benefit the entire program.

During FY-85 the following activities were completed:

ADMINISTRATION

MANAGEMENT/COORDINATION ACTIVITIES	387
PERFORMANCE APPRAISAL	2
MEETINGS/SUPPORT ACTIVITIES	201
ENGINEERING REPORT REVIEW	32

COMPLAINT INVESTIGATION

COMPLAINTS RECIEVED	348
COMPLAINTS INVESTIGATED	213

PERMIT REVIEW

INDUSTRIAL WASTE DISCHARGE PERMITS	39
MUNICIPAL WASTE DISCHARGE PERMITS	17
SUBSUFACE DISCHARGE PERMITS	9

TITLE V

PLAN/APPLICATION REVIEW	134
SITE INSPECTIONS	101
PLAN/APPLICATION APPROVAL	35
VARIANCES GRANTED	30

OPERATION AND MAINTENANCE

REVIEW OF SELF MONITORING REPORTS	1447
MAJOR PROBLEM PERMITTEE INSPECTIONS	97
MINOR PROBLEM PERMITTEE INSPECTIONS	8
NON PROBLEM PERMITTEE INSPECTIONS	131
MEETINGS ATTENDANCE	13

TECHNICAL ASSISTANCE

PLANT ASSISTANCE WITH T.A. UNIT	10
PLANT ASSISTANCE WITH REG. PERSONNEL	5

ENFORCEMENT

ENFORCEMENT CASES PREPARED	22
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IN-SERVICE TRAINING

TRAINING COURSE, SEMINAR, CONFERENCE ATTENDANCE	36
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Chemical Costs Reimbursements

This program - Chemical Costs Reimbursements - within the Division of Water Pollution Control of the Department of Environmental Quality Engineering was established through the passage of Chapter 510 of the Acts of 1980 (An Act authorizing reimbursement by the Commonwealth to cities, towns and districts for the annual costs of chemicals for the operation and maintenance of water pollution control facilities). This legislation allows a city, town or sewerage district to apply to the Division of Water Pollution Control for fifty (50) per cent reimbursement of the costs of chemicals utilized for chlorination, sludge dewatering, odor control and advanced waste treatment for phosphorous removal and nitrification during the operation and maintenance of a water pollution abatement facility.

The operation of the program has been established in the following manner:

1. The eligible chemical costs incurred at a wastewater treatment plant shall be from the preceding fiscal year period and shall be ascertained for that period by each city, town or sewerage district.
2. These ascertained costs shall be submitted by the eligible municipal bodies to the Division of Water Pollution Control for verification as to accuracy and eligibility before the end of the subsequent calendar year. Reimbursements under this program shall be paid from either the annual or supplementary budgets under budgetary control item #2240-0500. The funding mechanisms as stated in the enabling legislation cites the Local Aid funding process as stated in Section 18A of Chapter 58 of the Massachusetts General Laws. Once the amounts of monies necessary for reimbursement has been determined, normal practices and procedures as outlined by the Comptroller and Treasurer of the Commonwealth are followed and the reimbursement procedures take place.

The program is now established on an annual basis upon the yearly submission of costs incurred by a governmental entity during the previous fiscal year.

The request for reimbursement from each eligible city, town, or sewerage district must be submitted to the Division of Water Pollution Control utilizing the following procedure:

1. The list must designate the types of chemicals, the amounts of chemicals and the unit costs of the chemicals used.
2. These costs must be certified by the auditor in cities and districts and by the accountant in towns. Certification must contain the statement that the types, amounts and costs of the chemicals pertain only to those chemicals used in a wastewater treatment facility for chlorination, sludge dewatering, odor control and advanced waste treatment for nitrification and phosphorous removal during the operation and maintenance of said wastewater treatment facility.
3. Once verified by the Division of Water Pollution Control as eligible for reimbursement and sufficient funds for payment have been provided by both the Budget Bureau of the Department of Administration and Finance and the General Court, a list of cities, towns and sewerage districts and the amount of reimbursement to be provided to each is submitted to the Comptroller and Treasurer of the Commonwealth for payment.

Chapter 297 of the Acts of 1982 (An Act relative to the annual reimbursement of the costs of chemicals for the operation and maintenance of certain water pollution control facilities) made odor control chemicals eligible for the program.

During the fiscal period July 1, 1983 through Jun 30, 1984 the Division of Water Pollution determined the eligible cities, towns and sewerage districts and the reimbursement payments to each city, town and sewerage district.

The monies for the anticipated reimbursements to the eligible cities, towns and sewerage districts with the dollar amounts (before verification) provided is as follows:

Adams	- \$18,388.00
Amesbury	- 3,593.00
Amherst	- 18,217.00
Athol	- 2,390.00
Attleboro	- 37,310.00
Ayer	- 9,223.00
Barnstable	- 28,270.00
Commonwealth of Massachusetts-Belchertown State School	- 264.00
Billerica	- 12,288.00
Blackstone	- 508.00
Bridgewater	- 1,517.00
Brockton	- 54,586.00

Buckland	-	725.00
Charles River Pollution Control District	-	30,442.00
Charlton	-	392.00
Chatham	-	105.00
Chicopee	-	9,219.00
Cohasset	-	4,201.00
Concord	-	3,087.00
Dartmouth	-	7,151.00
Deerfield	-	864.00
Douglas	-	1,783.00
Dudley	-	660.00
East Bridgewater	-	498.00
Easthampton	-	14,460.00
Edgartown	-	389.00
Erving - Miller Falls 6,276.00 - Erving 46,000.00	-	52,276.00
Fairhaven	-	18,694.00
Fall River	-	138,387.00
Falmouth	-	314.00
Fitchburg	-	34,326.00
Gardner	-	1,561.00
Gloucester	-	3,197.00
Grafton	-	5,573.00
Great Barrington	-	9,368.00
Greater Lawrence Sanitary District	-	69,042.00
Greenfield	-	3,330.00
Hadley	-	303.00
Hardwich	-	167.00
Haverhill	-	60,577.00
Holyoke	-	86,098.00
Hoosac Water Quality District	-	23,732.00
Hopedale	-	8,275.00
Hudson	-	3,789.00
Hull	-	1,292.00
Huntington	-	222.00
Ipswich	-	5,805.00
Lee	-	530.00
Leicester Water Supply District	-	391.00
Lenox	-	2,198.00
Leominster	-	32,036.00
Lowell	-	23,653.00
Manchester	-	9,589.00
Mansfield	-	4,462.00
Marion	-	825.00
Marlboro	-	65,405.00
Marshfield	-	3,479.00
Maynard	-	948.00
Medfield	-	5,677.00

Metropolitan District Commission - Sewer Distict	-	\$750,823.00
Metropolitan District Commission - Water District	-	2,159.00
Middleboro	-	8,866.00
Milford	-	7,785.00
Milbury	-	561.00
Millis	-	139.00
Monroe	-	98.00
Montague	-	6,304.00
New Bedford	-	40,429.00
Newburyport	-	4,187.00
Northampton	-	10,332.00
Northbridge	-	3,345.00
Northfield	-	59.00
North Attleboro	-	21,797.00
North Brookfield	-	460.00
Orange	-	3,289.00
Oxford-Rochdale Sewer District	-	289.00
Palmer	-	11,124.00
Pepperell	-	443.00
Pittsfield	-	4,373.00
Plymouth	-	2,311.00
Rockland	-	13,419.00
Rockport	-	987.00
Russell	-	62.00
Scituate	-	1,080.00
Shrewsbury	-	3,172.00
Somerset	-	9,126.00
Southbridge	-	2,676.00
South Hadley	-	19,197.00
Spencer	-	745.00
Springfield	-	78,334.00
Stockbridge	-	1,218.00
Sturbridge	-	105.00
Sunderland	-	1,129.00
Swampscott	-	6,490.00
Taunton	-	44,608.00
Templeton	-	18,549.00
Upper Blackstone Water Pollution Abatement District	-	57,534.00
Upton	-	113.00
Uxbridge	-	3,539.00
Ware	-	300.00
Wareham	-	12,849.00
Warren	-	4,666.00
Wayland	-	1,966.00
Webster	-	1,575.00
Westboro	-	1,360.00
Westfield	-	16,296.00
Wilbraham	-	3,363.00
TOTALS	-	<u>\$2,119,682.00</u>

GRANTS FOR CONSTRUCTION OF COLLECTION SYSTEMS

The State Collection System Construction Grant Program of the Division of Water Pollution Control, as established by M.G.L. c. 21, s. 30A, is authorized to make grants to public entities for constructing collection system. Generally, the amount of the grant may not exceed FIFTY PERCENT of the eligible construction cost of the project or \$2,000,000 whichever is less. The program's objectives are to provide financial assistance to public entities for the construction of collection systems:

- °to serve those substantially developed residential areas having the greatest need and
- °to promote industrial/commercial projects providing substantial economic benefit to the Commonwealth.

The original bond authorization of \$12 million per year thru FY-84, was extended through FY-89 by chapter 286 of 1982, a Water Pollution Control bond fund.

This grant program is in addition to, and intended to complement the grant program administered by the Division under M.G.L. c. 21, §. 33 (EPA/STATE 90% construction grants program).

Division of Water Pollution Control
Collection Systems
Grant Program

Summary of Grant Revisions - Fiscal Year 1985

Grant revisions reflect adjustments due to:

- (1) as-bid adjustments
- (2) increased grant participation to 50% or \$2,000,000
(c. 286 of 1982 & c. 167 of 1983)
- (3) final project closeout

Public Entity	Type of Adjustment (1); (2); (3)	557 Project Number	Grant Adjustment
Acushnet	1	CS-47	- (44,330.)
Agawam	1	CS-127	- (2,526.)
Ashland	1	CS-160	+ 46,411.
Barnstable	1	CS-170	- (33,032.)
Boston Water & Sewer	1	EB-42	+ 257,126.
Douglas	3	CS-103	- (10,787.)
Dracut	1	CS-112	+ 131,504.
Falmouth	1	CS-54	- (152,707.)
Holbrook	1	CS-157	- (137,983.)
Holbrook	1	CS-156	- (4,179.)
Holbrook	1	CS-09	- (198,638.)
Holyoke	3	EB-18	- (3,965.)
Ludlow	1	CS-131	- (429,309.)
Malden	2	CS-19	+ 288.
Marlboro	3	CS-01	- (43,998.)
Medway	3	CS-02	+ 1,460.
Medway	1	CS-03	- (126,677.)
Medway	1	CS-03	+ 7,520.
Northborough	1	EB-23	- (22,503.)
Palmer	3	CS-52	- (9,230.)
Rockland	3	EB-01	- (60,374.)
Saugus	1	CS-115,116& -117	+ 466.
Shrewsbury	1	CS-174	- (15,893.)
Stockbridge	1	CS-59	- (67,215.)
Stoughton	1	CS-56	- (18,047.)
Taunton	1	CS-133 & 134	- (45,937.)
Westwood	1	CS-124	- (149,983.)
Westwood	1	CS-145A	- (846,669.)

TOTAL FY-85-(1,979,207.)

PRIOR YEAR TOTALS

FY-81-(1,146,169.)
FY-82-(3,623,270.)
FY-83+ 2,181,095.
FY-84-(710,106.)

TOTALS END FY-85 -(5,277,657.)

Division of Water Pollution Control
Collection Systems
Grant Program

Summary of Grant Closeouts - Fiscal Year 1985

Public Entity	557 Project Number	Grant Award Date	Original Grant Amount	Final Grant Amount	Date Project Completed
Douglas	CS-103	6-02-82	280,000.	249,281.	10-03-83
Holyoke	EB-18	12-07-82	23,570.	19,605.	2-19-85
Marlboro	CS-01	10-07-80	564,884.	443,114.	11-09-84
Medway	CS-02	5-06-81	247,148.	208,763.	11-16-84
Palmer	CS-52	8-26-80	120,330.	161,944.	12-27-84
Rockland	EB-01	9-25-80	<u>551,685.</u>	<u>429,874.</u>	11-16-84
TOTALS			1,787,617.	1,512,581.	

PRIOR YEAR TOTALS

FY-81	NONE	NONE
FY-82	NONE	NONE
FY-83	869,599	687,535.89
FY-84	<u>1,766,466.</u>	<u>1,444,520.17</u>
TOTALS - END FY-85	4,423,682.	3,644,637.06

Division of Water Pollution Control
Collection Systems
Grant Program

Summary of Grants - Fiscal Year 1985

Public Entity	557 Project Number	Grant Award Date	Total Project Cost	Eligible Construction Cost	Grant Amount
Andover	CS-209	4-25-85	3,821,497.	3,286,325.	1,643,163.
Andover	CS-208	6-25-85	3,606,468.	3,239,227.	1,619,614
Ayer	CS-46	6-11-85	349,430	282,870.	141,435.
Concord	CS-130	6-27-85	2,440,195	2,092,740.	1,046,370.
E. Longmeadow	CS-192	6-28-85	793,982	632,921.	316,460.
Gr. Lawrence	CS-27	6-28-85	658,666.	438,295.	219,148.
Hadley	CS-165	6-28-85	917,881.	431,963.	215,982.
Haverhill	EB-54	6-28-85	2,055,600.	1,715,175.	857,587.
Hopedale	CS-185	3-28-85	100,000.	87,400.	45,900.
Hull	CS-123	6-27-85	3,037,659.	2,525,379.	1,262,690.
Ipswich	CS-182	5-29-85	511,520.	410,702.	205,351.
Leicester WSD	CS-28	6-27-85	557,161.	458,076.	229,038.
Lowell	CS-159	6-28-85	369,422.	329,492.	164,746.
Manchester	CS-217	6-28-85	88,735.	67,982.	33,991.
Medford	CS-41	6-27-85	4,170,123.	1,396,983.	698,492.
Milton	CS-204	6-28-85	848,500.	770,000.	385,000
N. Brookfield	CS-188	6-27-85	1,270,371.	999,353.	499,677.
Newburyport	CS-206	6-27-85	212,000.	157,000.	78,500.
Newburyport	EB-03	6-27-85	1,205,356.	954,505.	477,253.
Northampton	CS-121	6-06-85	542,158.	408,404.	204,202.
Taunton	CS-189	6-26-85	326,520.	286,199.	143,100.
Tewksbury	CS-218	6-25-85	4,852,200.	4,296,200.	2,000,000.
Watertown	CS-34	6-26-85	1,605,600.	1,211,200.	605,600.
Wellesley	CS-139	6-26-85	1,070,558.	846,479.	423,240.
Westwood	CS-145B	6-28-85	2,766,361.	1,924,921.	962,460.
Whitman	CS-45	6-25-85	4,162,736.	3,244,202.	1,622,101.
Williamstown	CS-43	6-03-85	513,201.	447,001.	223,501.
Winchester	CS-175	6-26-85	120,553.	98,378.	49,189.

TOTALS	42,974,453.	33,039,372.	16,373,790.
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PRIOR YEAR TOTALS

FY-81	49,873,000.	41,639,401.	16,540,504.
FY-82	17,099,449.	13,975,137.	5,227,361.
FY-83	31,627,111.	26,722,371.	13,238,430.
FY-84	54,070,072.	42,084,662.	21,042,363.
TOTALS END FY-85	195,644,085.	157,460,943.	72,422,448.

